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ABSTRACT

These proceedings contain 25 presentations, some of which are followed by discussants' papers. They include: "Comparative Approaches to Welfare" (Badir); "More for Less: Low Cost of Universal Access to Health Care in Canada" (Barer); "Consumer Issues and Concerns in Health Care Provision" (Brown); "Low Cost of Universal Access: Reaction from the Medical Profession" (Bell); "Issues and Concerns--British Columbia Ministry of Health" (Pallan); "Divorce: Economic Consequences after Ten or More Years of Marriage" (Rowe); "Mobile Families' Satisfaction with Economic and Personal Factors and Its Relation to Stress" (Berger; discussants Ash, Harvey);" The Conservation Process: A Model and Preliminary Test" (Longstreth; discussant Haldeman); "Western Regional Proceedings: Contents in the 1980s and References to the Papers" (Makela, Tucker; discussants Baker, Beard); "The Personal Financial Effects of Serious Work Injury" (Ray, Horton; discussants Douthitt, Lown); "Relationships between Household Task Allocation and Perceived Stress in Nonmetropolitan Families" (Ward, Zimmerman; discussants Kingsbury, Olson); "Predictors of Search Time for the Purchase of a Home Furnishing Durable Good" (Ackerman, Windley); "Family Debt Management in Bankruptcy" (Bartelme, Baker); "Patterns of Family Financial Management" (Davis); "Analysis of the Effects of Children on the Trade-Off between Parental Time and Market Purchased Goods & Services Over the Life Cycle" (Douthitt, Fedyk); "Factors Related to Receiving Informal Grants: Study of Rural Families" (Haldeman, Tomcala, Hall); "Health, Self-Esteem, and Youth Employment" (Holyoak, Wolfe); "Financial Management Practices Influencing Perceived Adequacy of Consumption Level among Married Student Wives" (Jeries); "Towards a Conceptual Understanding of Financial Problems: Building on Hughes' Model of the Family in Financial Crisis" (Lown, Cook); "Development and Application of an Underemployment Classification System for Women in Two-Child Families" (Masuo); "Future of Retirement: The Baby Boom Generation" (Mileham); "Playing the Numbers Game" (Peterson); "Teaching Writing through Management Theory" (Peterson); "Implications of Marital Property Legislation for Financial Management of Remarried Families" (Metzen); and "Divorcing Couples Need Financial Information and Education" (Morrow). (YLB)

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Papers

27th Annual Conference
of the

WESTERN REGION HOME MANAGEMENT FAMILY ECONOMICS EDUCATORS

Volume 2

November 4-6, 1987
Vancouver, British Columbia

Edited by
Arlene Holyoak
Oregon State University
Corvallis, Oregon

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TABLE OF CONTENTS

	Page Number
Foreword	iii
Author Index of Papers	iv
Minutes: WRHMFEE Conference 1987	169
WRHMFEE Account	170
WRHMFEE Newsletter Account	170
Guidelines	171
Appendices:	
Program	174
List of Registrants	178

FOREWORD

The 27th Annual Conference of the Western Regional Home Management-Family Economics Educators met in Vancouver, British Columbia. This was the first time the conference had been held in Canada. As conference organizers we wanted a theme that could emphasize some of the unique approaches Canada takes to family economic problems. We also thought it would be useful to provide Canadian and U.S. comparisons on approaches taken to family welfare. The conference theme, **Economics of Health and Welfare**, met both of our objectives.

From selection of keynote addresses to discussants for papers, we tried to emphasize U.S. - Canadian comparisons on the information presented. The opening session focused on approaches to health care. Morris Barer, a health economist, contrasted the cost of universal access to health care in Canada to the costs of health care in the U.S. The costs of universal access were low in comparison to costs with the U.S. health care system. The panel, focussing on health care in Canada and B.C., emphasized some of the issues and concerns consumers, doctors, and the government have about maintaining quality socialized health care.

In the second general session, Doris Badir, a family economist who is pay equity advisor to the President of the University of Alberta, presented historical U.S. - Canadian differences which would be expected to be reflected in each country's approach to welfare. It was interesting to see how many more similarities than differences there were. Both Barer and Badir have illustrated their papers with numerous charts and graphs. Their papers provide us with excellent comparative information to incorporate into our teaching about economics of health and welfare.

The final session was a panel, "Using Family Economics Data for the Welfare of Families--Application in the Classroom and Courtroom," organized by Jeanne Wielage Smith. While the participants have provided written comments, the written statements cannot begin to capture the dynamic exchange of ideas among panel members and with the audience. Ruth Berry provided information from the Canadian perspective; Jeanne Smith, the U.S. perspective, Alice Mills Morrow described how the information has been used in her extension role, and Jeanne Peters outlined a graduate course which focused on use of family economics data.

In addition to the three general sessions, there were refereed and reviewed paper sessions. There were more submissions than usual. A number of excellent papers were accepted --5 refereed and 12 reviewed -- making the two days of the conference packed with information.

Both countries were well-represented. There were 19 registrants from Canada, many of whom were attending their first WRHMFEE meeting; and 46 from the United States. Out of the total number, 17 were students. Within Canada, registrants came from Manitoba, Saskatchewan, Alberta, and British Columbia. Within the United States, 30 attendees came from states usually identified as the Western Region. Others came from Iowa, Minnesota, Nebraska, and Wisconsin.

The conference was held at the Pan Pacific Vancouver Hotel, built for Expo 86, and part of a World Trade and Convention Center. All hotel rooms had ocean and mountain views, typical B.C. scenery. A Canadian theme was carried out in the West Coast reception and in special events. Participants had the opportunity to learn about Northwest Coast Indians from a tour of the Museum of Anthropology at the University of British Columbia, and from an Indian dinner at the Faculty Club; and to take an all-day tour to Victoria on Vancouver Island.

We thank the B.C. companies (B.C. Tree Fruit, Dairyland Foods, Kelly Douglas and Company, and Foremost Foods) who provided nutritional snacks; the B.C. Ministry of Tourism for conference packets; the Greater Vancouver Visitors Guide Ltd.; the School of Family and Nutritional Sciences at UBC: the Faculty of Human Ecology at U. of Manitoba; students in Family and Nutritional Sciences at UBC; and Harry Berry for his expertise as treasurer. We appreciated the help of the WRHMFEE officers, reviewed and refereed paper committees, program participants (speakers, discussants, and presiders), and attendees in making the first WRHMFEE meeting in Canada a success. We look forward to continuing to have a comparative approach to family economic and resource management issues in future WRHMFEE conferences.

Conference Co-Chairs

Ruth Berry
University of Manitoba

Phyllis Johnson
University of British Columbia

AUTHOR INDEX TO THE 1987 PROCEEDINGS

		Page Number
Invited Papers		
Badir, Doris R.	"Comparative Approaches to Welfare"	1
Barer, Morris L.	"More for Less: The Low Cost of Universal Access to Health Care In Canada"	11
Brown, Ada	"Consumer Issues and Concerns in Health Care Provision"	21
O'Brien Bell, John	"The Low Cost of Universal Access: A Reaction From the Medical Profession"	22
Pallan, Paul	"Issues and Concerns - British Columbia Ministry of Health"	24
Graduate Research Award		
Rowe, Barbara R.	"Divorce: The Economic Consequences After Ten or More Years of Marriage"	26
Refereed Papers		
Berger, Peggy S.	"Mobile Families' Satisfaction with Economic and Personal Factors and Its Relation to Stress"	34
	Discussants: Joan M. Ash	40
	Carol D.H. Harvey	42
Horton, Sally	(See Ray, Margaret)	
Longstreth, Molly	"The Conservation Process: A Model and a Preliminary Test"	43
	Discussants: Virginia A. Haldeman	53
	Janice Hogan	NMS*
Makela, Carole J.	"Western Regional Proceedings: Contents in the 1980s and References to the Papers"	54
	Discussants: Georgianne Baker	62
	Doris Beard	64
Ray, Margaret P.	"The Personal Financial Effects of Serious Work Injury"	65
	Discussants: Robin A. Douthitt	75
	Jean M. Lown	77
Topliff, Michael	(See Longstreth, Molly)	
Tucker, Suzanne M.	(See Makela, Carole J.)	
Ward, Rebecca J.	"Relationships Between Household Task Allocation and Perceived Stress in Nonmetropolitan Families"	78
	Discussant: Nancy M. Kingsbury	89
	Discussant: Geraldine I. Olson	90
Zimmerman, Judith	(See Ward, Rebecca)	

*No Manuscript Submitted

Reviewed Papers

Ackerman, Norleen M.	"Predictors of Search Time for the Purchase of a Home Furnishing Durable Good"	92
Baker, Georgianne	(See Bartelme, Barbara)	
Bartelme, Barbara	"Family Debt Management in Bankruptcy"	101
Cook, Janeen	(See Lown, Jean M.)	
Davis, Elizabeth P.	"Patterns of Family Financial Management"	108
Douthitt, Robin A.	"Analysis of the Effects of Children on the Trade-Off Between Parental Time and Market Purchased Goods & and Services Over the Life Cycle"	113
Fedyk, Joanne P.	(See Douthitt, Robin A.)	
Haldeman, Virginia A.	"Factors Related to Receiving Informal Grants: A Study of Rural Families"	120
Hall, Helen C.	(See Haldeman, Virginia)	
Holyoak, Arlene	"Health, Self-Esteem, and Youth Employment"	125
Jeries, Naheel	"Financial Management Practices Influencing Perceived Adequacy of Consumption Level Among Married Student Wives"	130
Lown, Jean M.	"Towards a Conceptual Understanding of Financial Problems: Building on Hughes' Model of the Family in Financial Crisis"	136
Masuo, Diane	"Development and Application of an Underemployment Classification System for Women in Two-Child Families"	142
Mileham, Colleen K.	"Future of Retirement: The Baby Boom Generation"	148
Peterson, Audrey L.	"Playing the Numbers Game"	154
Peterson, Audrey L.	"Teaching Writing Through Management Theory"	159
Tomcala, Ann	(See Haldeman, Virginia)	
Windley, Leona	(See Ackerman, Norleen)	
Wolfe, Jerri	(See Holyoak, Arlene)	

Workshop Presentation

Metzen, Anita Barness	"Implications of Marital Property Legislation for Financial Management of Remarried Families"	163
Morrow, Alice Mills	"Divorcing Couples Need Financial Information and Education"	166

COMPARATIVE APPROACHES TO WELFARE

Doris R. Badir[1]

Richard Titmuss, the architect of the social service system in the United Kingdom, once said: "As the social services become more complex, more specialized and subject to a finer division of labour they become less intelligible to the lay councillor or public representative" and one could add - to anyone else who is responsible for administering those social services. Certainly all home economists working in the area of family economics have had to try at one time or another to understand the systems of income support that a particular jurisdiction within which they worked had legislated. The task set for this morning has been one of trying to help people to understand the similarities and differences between the ways in which the two countries of the United States and Canada approach the whole business of social security.

Historical Roots of the Welfare System

One has to turn the pages of history back and look beyond the doors of this continent to attempt to understand. Looking after the poor and the dependent has always been a social concern. In a subsistence based economy, with little mobility, this responsibility rested largely with the family who "looked after its own", and to some extent with the parish in particularly impoverished or needy circumstances. It was the shift to a wage-based industrial economy, which resulted in individual wage-earners having the responsibility for far many more dependents than their income could manage, that eventually shifted the burden of dependent individuals from the family to the state. Thus the history of what has come to be known as the welfare state is a history of governments assuming responsibility for ensuring the welfare, or security of groups in the population which the market has declared as surplus - the young, the elderly, the handicapped or disabled, the unemployed or the underemployed. This movement evidenced itself much earlier in Europe than in North America. In fact when Beatrice and Sidney Webb visited the United States and Canada in 1911, they said of Canada - "there is a complete lack of any thinking regarding social problems ... the causes which produce destitution, as a disease of society, are not far off." (Allan, 7 p.2)

This approach of governments is a shift in belief from "the poor are poor because they are lazy" to a belief in some standard of equity that suggests that everyone is entitled to a share of the wealth. It is a recognition on the part of governments of the principle of equity and a use of their vested authority to redistribute resources from the groups which are, in a strict sense, more productive to those which are less or, in other words, from those who are able to earn to those who do not have that capacity or ability. The struggle for every government is the struggle to keep a balance between what economists call the "accumulative function" i.e. ensuring the necessary capital for continued economic growth and the "legitimation function" which ensures the demands of minimum assistance to dependent groups.

Most industrialized countries are committed to some form of redistribution which: guarantees all citizens certain minimal decencies of life; provides for people whose needs cannot be met through the market system; allows for some mobility because people are no longer overly dependent for basic security on their extended family and provides for a collective expression of compassion.

Different Political Cultures

The task of this paper is to provide a comparison between the welfare systems in Canada and the welfare systems in the United States. Presumably that is because the venue of the conference being Canada, for the first time, it allows one in a more real way than might otherwise be the case, to examine the similarities and differences. It is important to say at the outset that this is going to be an overview; there will be some in the audience who will know more about some aspect of the welfare system in either country than is here suggested or perhaps even mentioned. It is not the intent to come up with a comparison that places one country's system as superior to the other. The manner in which the two countries collect their data and even the vocabulary they use to describe that data are at times so unlike that comparisons are difficult if not impossible. This will be an attempt to look at some of the most obvious programmes and to discuss some of the differences. There are several references in the Bibliography which set out to compare various aspects of the welfare systems in the United States and Canada, as well as with other western nations. The interested reader might wish to look at them.

This will be a comparison of the struggle, and its results, of two nations - two nations who share a current standard of living which is equalled only by Switzerland and Sweden. They are two nations both born out of British imperialist expansion between the 15th and 18th centuries, and thus share the same language and heritage but there the similarity ends.

The United States was born out of a revolutionary struggle while Canada developed in what is usually termed an evolutionary process.

[1] President's Advisor on Pay Equity, University of Alberta; President-Elect of the International Federation for Home Economics.

The United States had, almost from the beginning, a strong industrial base; a strong sense of individualism; an abhorrence of big government, a more moderate climate, and almost all of its land mass able to support communities and industry.

Canada, from its inception, ideologically has tried to incorporate a second language and culture as a political fact; was largely agriculturally based economically until the discoveries of minerals, oil and water-power which provided a rich natural resource base; has virtually almost two-thirds of its land mass unable to support industrial development. In fact, some 90% of Canada's population still lives within fifty miles of the border with the United States.

Ideologically, the United States was born out of the liberal ideas of the 18th century with a strong sense of individual worth and laissez-faire while Canada, greatly influenced by its "loyalist immigration" after the revolution, grew out of a tory sense of community, loyalty to law and order, social cohesion and personal responsibility for all members of that community. H.L. Morton, a Canadian historian has referred to the ideological base of the United States as being "Life, liberty and the pursuit of happiness" while in Canada we talk of "Peace, law and order and good government".

The result then is a very different political culture within which any welfare policies are to be developed. Where the U.S. went for individualism and hostility to government - Canada held for a more corporate view of society and was more friendly to strong government. Where in the U.S. the major political parties are relatively homogenized and leave little room for parties that do not fit into the liberal mode, in Canada the opposition is varied Liberal, Tory, Socialist (the latter two being heresies in the U.S.) although all parties have had to modify their extremists in order to maintain any kind of profile in the political system.

The struggle, therefore, to build a more equitable world, a welfare state, has been very different and is reflected in the strange melange of programmes and services available to the dependent population in each of the two countries.

In response to a variety of emergencies like war, depression and regional disparities these two countries began to use the power of the state to modify the economic impact on families and dependent members of the society. The purpose of their actions was to achieve at least three important conditions:

> The first condition is the assurance of a minimum income for individuals and families, irrespective of the market value of their work or their property.
>
> The second is protection against certain universal risks such as sickness, old age, and unemployment that could otherwise lead to individual or family crises.
>
> The third condition presupposes that all citizens without distinction of status have equal access to an agreed range of services (such as education and health care) and opportunities.

This implies a program to ensure a continuity of income to minimize the risks of an industrial society which result from unemployment, sickness, disability, death, the absence of a breadwinner, pregnancy and child- bearing, old age and retirement. There are concomitant risks which threaten the adequacy of income such as family size, the costs of medical and hospital care, shelter costs, low earnings and inflation. These are universal risks which affect all of us at some time or another but put a particular pressure on certain groups and individuals in our societies. The paper deals largely with the question of income security rather than with any comparison between the manner in which welfare services are delivered.

Income and Income Distribution

Before looking at welfare systems it is important to define the populations to which any welfare system is directed. Turning first to the questions of income and income distribution Table 1 shows that the Mean Household Income in the United States in 1983 was around $25,000. Furthermore one notes that about 41% of households receive income inexcess of the mean while 30% receive less than one-half of the mean income of households.

While the Canadian figures are not exactly comparable they do show similar trends. The Mean Family Income in 1986 was near $38,000 (Fig. 1). Figure 2 however, shows that the distribution of income is considerably skewed. While the top quintile of the population receive more than 40% of the income of Canadians, the bottom quintile receive only 10% of that income.

Defining Poverty

The most striking feature about the income distribution profiles in the two countries is the unequal nature of the distribution. In Canada, only 3.9 percent of all income goes to the poorest 20 percent of family units while 42.5 percent goes to the highest 20 percent of families. If one looks at the figures for individuals the situation is even worse - only 2.2 percent of income goes to the bottom 20 percent while 48.5 percent is received by the top 20 percent. Income distribution has become, for advanced industrial societies, a definition of poverty. In a discussion of inequality, Miller and Roby, have this to say:

"Poverty has become the acceptable way of discussing the more disturbing issue of inequality...Obviously the lack of full economic or social citizenship in society is different from the condition of poverty in which families are starving. In the affluent society relative deprivation, a comparative position of losing out, characterizes most of those termed poor. The historic term poverty, once applied to low-income families in industrialized societies, is found wanting when stretched to highly industrialized societies... lagging incomes rather than low incomes are the issue." (Ross 14, pp.3-5)

There no longer is "the poor" - those whose incomes are somewhat less than the mean - but there is the "very poor" - those who are totally dependent on the society for the livelihood, and the "near poor" or the "working poor" - those who are poor but are not recognized as such.

Defining the "poverty level" has become an important exercise for economists and for home economists. There are basically two approaches to the definition of poverty - Budget comparisons and Income comparisons.

1. Budget comparisons -

   a) the subsistence approach, this is arrived at by setting out the minimum requirements needed for family survival - shelter, food, clothing and basic health care.

   b) social adequacy, which builds on subsistence needs and includes budget expenditure items taken for granted by most people.

2. Income comparisons - This approach defines poverty in relative terms. It springs from a concern for a more equitable distribution of the available wealth. There are two ways of defining poverty by these terms:

   a) one way is by determining the average household income (using all sources of income: interest, profit, wages, UIC). This would be pre-tax income. The poverty line is calculated as 50% of the average income for a family of three and adjustments are then made for family size.

   b) Yet another approach is to calculate what the "average family" spends on necessities and then to make a judgement that any family which had to spend more is living below the poverty line.

The approach that one chooses is based primarily on whether or not concerns are for some more equitable way of distributing the society's wealth or whether one is primarily concerned with allowing people to survive. In using the budget approach one equates poverty with starvation and acts accordingly. By using the income approach one assumes that daily newspapers, movies, annual vacations, meat, fresh fruit, and sports equipment should be a part of every household budget.

Table 2 outlines the approaches used in the United States and Canada. In Canada before 1973 the procedure was to take 50% of the average Canadian Income for a family of three and adjust for family size. Since 1973 there are two sets of low income cut-offs; the first was selected on the basis that families in a 1969 Family Expenditure Survey had spent, on aver- age, 42% of their income on food, clothing and shelter. A figure of 62% was established as the limit and that became the cut-off for det- ermining the poverty level. In 1978 that figure was revised downward to 58.5%. Anyone spending more than that on necessities was considered to be living in difficult circumstances.

In the United States one method for determining the poverty level suggests that expenditure of more than 33% of income on food is to suggest the poverty presence, while a more generous approach is to suggest a level of 125% of that.

When these policies are acted upon it is interesting to look at the results. Figure 3 shows that in Canada in 1985 the low-income cut-offs (when adjusted for family size and area of residence) there were variations for a family of four from $15,310 in a rural area to $20,812 in an urban area. The picture for a single person shows a cut-off of $7,568 in rural Canada to $10,233 in urban Canada. Table 3 shows the U.S. cut-off of about $5,278 for a single person and $10,609 for a family of four.

An interesting comparison is presented when one looks at the difference between official cut-offs and what persons asked to suggest what a "reasonable cut-off" might be. If one studies only the bottom line in Table 4 one notes that where the official cut-off in the United States in 1978 was $6,367, the popular notion of an appropriate cut-off was $10,452 - a difference of 64%. In Canada where the poverty level was set at $9,976 by the government the Canadian Council on Social Development standard was $10,400 - a difference of 4%.

Who are the Poor?

The next question is an obvious one: who are the poor?

In Canada poverty tends to be regional and very much tied to basic industries like agriculture and fishery. In the United States poverty is most often described in terms of minority groups such as blacks and hispanics. Thus when one talks of "families" and "individuals" one is talking of some general group, not of the "pockets of poor" which tend to be much more severe than the averages.

In Figure No. 4 a picture of the numbers of unattached individuals over the age of 65 who live below the poverty line in Canada is presented. In 1985 just over 50% of unattached females lived below the poverty level and about 33.7% of unattached males. Notable is the decline in numbers over the period 1979-1985. Table No. 5 shows the contrasting figures for the United States - some 25.9% of females in 1983 and 20.8% of males.

The picture of families in the United States, as shown in Table 5, indicates that about 11.6% of all families are living below the poverty line; 34.5% of all families headed by females and only 9% of couples without children were living in poverty. The Canadian picture is somewhat similar. About 13.3% of all families in Canada in 1985 were living in poverty as depicted in Figure 5. Figure 6 sorts low income families by type in Canada and the results are parallel to the United States. Nearly one-half (48%) of lone-parent female-headed families live in poverty. This translates into the fact that about 33% of all low-income families are single-parent, female-headed. About 19.7% of lone-parent male-headed families live in poverty.

Couples with children account for 12.9% of all low-income two-parent families but this represents some 41.7% of all families. The revealing thing about these statistics is that about 19.5% (or 1.1 million) of all children in Canada live below the poverty line.

Comparative Welfare Systems

The two countries share a common heritage, they have developed radically different political cultures and yet an examination of the descriptors of the two societies shows that they are incredibly similar.

The welfare rolls contain similar sorts of families and problems: increase in divorce, separation, desertion, and illegitimacy; increase in the number of dependent women through widowhood; a more than doubling of the number of single-parent families between 1961 and 1979; a concomitant increase in the cost of welfare programs.

The question then is: are the fundamental differences in political culture reflected in the approach to social justice? There is a difference in the precipitancy of the change with which the problems have been dealt. Whereas the rapid expansion in welfare programs came in Canada in the fifties and early sixties the United States had its most rapid expansion in the thirties and in a small rush during the late sixties and early seventies. On the whole the Canadian public seems to have had a more tolerant attitude toward welfare beneficiaries and also seems to be much more affected by the welfare examples set by other countries. In general the development of programs in Canada has been gradual over the period 1940 to 1970.

In the U.S. there has been nothing like the steady progress seen in Canada since the very rapid expansion under Roosevelt in the '30's. What has been done has largely been through modifications of old laws rather than the enactment of new ones. A political scientist would relate this directly to the differences in the federal systems and how they work. Leadership in both countries made valiant attempts in the mid-seventies to expand and organize the income support systems. Both tried to introduce a kind of guaranteed income policy. Both succumbed to strong opposition and have not revived the proposals.

Since most social policy in both countries has had as its intent the redistribution of wealth, it is appropriate to look at some of the major income support systems in Canada today and to make comparisons where possible with the systems at work in the United States. In both countries there has been considerable difficulty in determining which level of government should have the responsibility for implementing programs and which level of government should be paying for them. Thus to provide a direct comparison has been virtually impossible.

A selected group of income support programs will be studied, and where possible to draw comparisons. For purposes of clarification, the income support programs are divided into four categories: Demogrants - universal grants to groups in the basis of demographic characteristics; Social Insurance - employment related programs which require some balance between contributions of employer, employee and the government; Social Assistance - grants based on the residual income needs of the society - the needs of the blind, of mothers, the aged and the unemployed; Income Supplementation - grants to supplement insufficient income from other sources. See Table 6.

Demogrants

Family Allowances: these are provided by about 67 countries including every industrial nation but the U.S. They are viewed as a policy strategy which allows society to share the economic stress of raising children. They do not compensate, of course, anywhere near costs of children but they do act as a supplement to income which is very important to low-income groups. In most countries they are financed out of general revenue. They are enormously popular and any government which would try to eliminate them would do so at its peril.

Canada: In Canada the Family Allowance is a federal demogrant which was introduced in the mid-forties in a bid to bolster the economy by putting money into the hands of the consumer. It is payable to all families with dependent children under 18, and redistributes income in accordance with family size. The benefits are

indexed and are taxable. Currently two provinces vary the allowance in accordance with the age of the child.

Old Age Security:

Canada: The Old Age Security program is a federal government demogrant available to everyone over the age of 65. It is non-contributory and was intended to be the foundation for a retirement income to which individuals would add income from other retirement schemes. It is indexed to the cost of living and it is taxable.

The Spouse's Allowance is designed for pensioner's spouse aged 60 to 64. The maximum equals the OAS rate plus the maximum GIS married rate. It is income-tested for the portion that exceeds OAS maximum. It is not taxable.

Social Insurance

National Pension Plans:

Canada: The Canada Pension Plan is a contributory, wage-related pension program which received contributions from both employee and employer. Participation is compulsory for both employer and employee. The maximum CPP pensions pay out only 25% of pensionable earnings. Persons outside the labour market do not benefit. Contributions are tax deductible.

United States: Social Security is a contributory, wage-related program, with benefits related to contributions.

Unemployment Insurance: Unemployment Insurance is a compulsory, non-income tested, wage-related cash benefit. There is a maximum level of gross earnings for insurance and benefit purposes. It is available for a maximum period and the recipient must have worked a specified period of time and contributed to the system before eligible for benefits. The recipient must be voluntarily unemployed and capable and available for work. The definition of "suitable employment" is a matter of great contention. The wage replacement function of this program is in constant tension with the desire to preserve the motivation to work.

Canada: Unemployment insurance is federally administered. Both the employee and the employer contribute and the contributions are wage-related. The federal government antes in the remainder. 95% of the labour force are covered. It pays 60% of average insured earnings after a waiting period of two weeks. A person must have worked 10-14 weeks in past 52 to be eligible and can draw on the plan for up to 50 weeks. Benefits can be extended in areas of high unemployment. This plan also allows for up to 15 weeks illness and 15 weeks maternity leave. The benefit is taxable.

United States: Unemployment Insurance in the United States is through federal-employer joint funding and is state administered. 85% of the labour force is covered. There is a specified wage replacement which is 50% of wages up to a maximum which is significantly lower than the maximum payable under social assistance. There is a waiting period before first payment which is up to one week in most States. Benefits are payable up to a maximum of 26 weeks (30 in Pennsylvania), but are extended in areas of high unemployment. Benefits are tax free up to a relatively generous ceiling.

Worker's Compensation:

Canada: In Canada this program provides financial, medical and rehabilitative assistance to workers who become disabled by accidents or illnesses related to their jobs. It is funded by employers and provincially administered.

Social Assistance

Social assistance is a means-tested or income-tested system. It is a mixture of labour-market policy and charity. It has a tendency to: distinguish the employable from those not expected to work; define implicitly or explicitly the "worthy" and the "unworthy"; give local administrators certain discretion in determining benefit levels or levels of intervention; combine cash assistance with services, education, work-requirements and work training. It is usually administered by a local government, either county or municipal. It performs one of three main functions:

Income Substitution - providing an alternate source of primary support for the household unit.

Income Supplementation - adding to earned income, a pension, or another social security benefit, because what is available is below what is defined as a social minimum.

Income Replacement - taking over on exhaustion of unemployment insurance entitlements, training stipends and so forth.

Social Assistance comes in all these forms in both the United States and Canada. It is difficult to generalize beyond this statement because the administration and support at local levels varies so much as to make comparisons difficult.

Canada: Through the Canada Assistance Plan the federal government reimburses the provinces for fifty percent of the cost of their social assistance programs. There are major provincial variations in benefits and administration. There has

been a significant improvement to income maintenance programs since CAP came into being in 1966. There is a tendency in most provinces for the service delivery and the determination of eligibility to be integrated.

United States: Social Security is an income maintenance policy which is supplemented by the federally administered Supplementary Security Income (SSI).

Aid to Families with Dependent Children (AFDC) is a social assistance program administered by state or county. It operates through federal matching funds. It includes a service strategy to help persons back to work.

Food Stamps are an income-tested cash equivalent voucher program. The eligibility levels are sufficiently low that many families not eligible for AFDC and General Assistance may be eligible for this program. It is administered by the Department of Agriculture and was originally conceived of as a method for using up surplus production in the agricultural sector.

Old Age Assistance is a state plan with federal contributions.

The administration of eligibility claims and services in the United States Social Assistance programs is separated to a greater extent than in Canada but there is greater inconsistency across the different jurisdictions.

Income Supplementation

Canada: Guaranteed Income Supplements: This is a supplementary plan to OAS which is meant to provide adequate income to those whose private pensions are low or non-existent. It requires a means test and it is not taxable.

Child Tax Credits: Children eligible for Family Allowance are generally eligible for Tax Credits. There is a maximum credit level for each child. There is a fixed exemption level and as net income exceeds the exemption level credit is reduced by $0.05 for every excess $1.00 of income. The exemption level and the credit level change with changes in the cost of living.

United States: Earned Income Tax Credit (EITC) is available to low income families whose annual earned income is below a prescribed amount. This amount is adjusted regularly. A significant number of families qualify.

Table 7 gives the reader some idea of what the retirement benefits provide for the persons without other earned pensions. It can be readily seen that though these provisions appear to be generous, they serve only to keep the recipients at, or just above, the poverty line.

Canadian income maintenance programs suffer from two weaknesses: fragmentation where too many programs are attempting to do the same thing and a benefits system which is not adequate to assure a minimum adequacy of income.

American income maintenance programs would seem to suffer from the same difficulties coupled with a tendency to be over-regulated in terms of how and where money is spent. Both Canada and the U.S. devote a much larger proportion of income-maintenance expenditures to means-tested or needs-tested aid than do any other industrialized nations and both countries seem unable to move beyond the provision of subsistence maintenance.

When discussing income support systems one must not forget that there are many privately operated pension, unemployment, medical and dental systems which also act to provide a security net for workers. Because they are primarily designed for the steadily employed worker they have not been mentioned in the context of welfare.

Summary and Conclusions

There is a commonly held myth that governments through the years have substantively redistributed income taking from the rich and redistributing to the poor. Ross (1980) in a study of income distribution noted: "During the 27-year period under examination, the distribution of income in Canada has tended to be quite stable, or has perhaps worsened slightly. The bottom 20 percent of Canadian family units habitually receive around four percent of total Canadian income, and the top 20 percent habitually receive around 42 percent. The distribution of wealth is slightly better since the bottom 20 percent own nine percent of total wealth, although this is deteriorating". Most references would suggest that the situation in the United States would not be any different.

"In international comparisons, Canada tends to rank in the middle of the industrialized countries: Japan and Sweden tend to have more equal distributions, and the U.S. and France are more unequal, but what is interesting is that the split of 41 percent for the top 20 percent and five percent for the bottom 20 percent tends to predominate in all countries, with small variations around these averages." (Ross, 1980).

By and large the policies of the two countries reflect a concern for maintaining a link between the contributions that individuals make to the society and the provision of security against the risks that are inherent in an industrial economy. During the past few years of rapid growth and advancement both countries have carried out parallel expansions of their commitment to this principle. By the mid-

seventies Canada was spending about 18.9% of its Gross Domestic Product on income security programs while the United States spent something like 15.7%. This compares to a high of 29.1% in New Zealand and low of 8.9% in Japan. The European countries sat at about 22%. Income security is, however, a product of affluence rather than poverty. As resources have become restricted the choices between these two commitments - expansion of the economy and security of income have had to be made. The crisis in welfare spending hit the United States in the mid-seventies about three years before it hit in Canada.

It came as a backlash - a backlash coming (not surprisingly) out of the strong liberal nineteenth century ethic of individualism and a laissez-faire. Canada has been somewhat less inclined to react to this backlash but increasingly one hears sounds of disaffection. Things like: many people receiving welfare do not need it and should be working; abuses of the system are widespread; no one who can work needs to be poor; welfare recipients should be forced to work, are common remarks in the press and among the people.

People find it difficult to understand the effect of minimum-wage occupations. No matter how hard you work it is never enough to keep the wolf away from the door. Just being willing and able to work will not ensure absence of poverty.

There is little difference in public thinking in the two countries. The major differences lie in the way things are done. The problems presented in a shared history and geography, problems of differences promoted by political decentralization, social heterogeneity, widespread private pensions and insurance, a tax system that makes the costs of welfare explicit, a weakly organized working class, and a large middle class containing many self-employed individuals, are the same. What is different is the manner in which the two governments respond to public distress and criticism. Ultimately the degree to which the ideology of the welfare state expresses itself through the political culture and the legislative process will determine the extent to which either country achieves any advances in the attack on poverty.

The problems of poverty are not going to go away. Home economists, social workers and others like them are still going to find themselves dealing with a morass of welfare programs. They are still going to have to help those who are trying to find their way to independence and self-reliance or those who are looking for support to tide them over the rough times. They are still going to have to deal with programs that have been made by politicians, who, no matter how philosophical their thinking, still have their eye on the voting public.

Perhaps it helps to close on a philosophical note. The paper began with a quote from Richard Titmuss, it closes by paraphrasing him: Durkheim observed that as human beings become more individual and more specialized they become more socially dependent. Simultaneously they become more aware of what has caused this dependency and thus more exposed to uncertainty and conflict about the purposes and roles they are expected to fulfill. It is this self-knowledge of the "man-made" cause of our dependency that drives societies to create social policy and to work at effecting it.

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TABLE 1.

SOME U.S. COMPARISONS

INCOME DISTRIBUTION - 1983

TOTAL HOUSEHOLDS - 85,407,000

MEDIAN INCOME $ 20,885

MEAN INCOME $ 25,401

SALARY	% OF HOUSEHOLDS
UNDER $ 2,500	2.9%
$ 2,500 - $ 4,999	6.3%
5,000 - 7,999	7.3%
7,500 - 9,999	6.4%
10,000 - 12,499	7.0%
12,500 - 14,499	6.0%
15,000 - 19,499	12.0%
20,000 - 24,999	10.8%
25,000 - 34,999	17.0%
35,000 - 49,999	14.0%
Over 50,000	10.3%

TABLE 2

SOME U.S. / CANADIAN COMPARISONS

Poverty

POVERTY INDEX

CANADA - 2 Approaches

1. 50% of average income for a family of 3
2. Any family that spends 62% of income on necessities

UNITED STATES - 2 Approaches

1. When the proportion of income spent on food exceeds 1/3
2. 125% of official government standard

TABLE 3

SOME U.S. COMPARISONS

LOW INCOME CUT-OFFS by FAMILY SIZE - 1984

FAMILY SIZE	INCOME THRESHOLD
1 PERSON	$ 5,278
UNDER 65	5,400
65 +	4,979
2 PERSONS	6,762
UNDER 65	6,983
65 +	6,282
3 PERSONS	8,277
4 PERSONS	10,609
5 PERSONS	12,566
6 PERSONS	14,207
7 PERSONS	16,096
8 PERSONS	17,961
9 OR MORE PERSONS	21,247

TABLE 4

POPULAR AND GOVERNMENT VIEWS OF THE NEEDS OF A FAMILY OF FOUR

	Public's View of amount needed to 'Get Along		Poverty Line		Ratio of Columns 1 and 2	
YEAR	CANADA	UNITED STATES	CANADA	UNITED STATES	CANADA	UNITED STATES
1967	$ 5,200	$ 5,252	$4,060	$3,410	0.78	0.65
1969	6,500	6,250	4,420	3,743	0.68	0.60
1973	7,600	7,750	5,295	4,540	0.78	0.57
1976	10,400	9,200	8,478	5,659	0.82	0.62
1978	10,400	10,452	9,976	6,367	0.96	0.61

From: Lemon, Christopher. The Collapse of Welfare Reform: Political Institutions, Policy, and the Poor in Canada and the United States. MIT Press 1980 p 44

TABLE 5

SOME U.S. COMPARISONS

SAMPLE LOW INCOME CUT-OFFS

LONE PARENT (FEMALE)	$ 8,382
SINGLE PERSON	4,620
FAMILY - 4 PERSONS	8,418

UNATTACHED INDIVIDUALS 65 + BELOW POVERTY LEVEL

TOTAL	24.2%
MALES	20.8%
FEMALES	25.9%

FAMILIES BELOW POVERTY LEVEL

% OF ALL FAMILIES	11.6%
% OF FEMALE HEADS OF HOUSEHOLDS	34.5%
% OF COUPLES WITHOUT CHILDREN	9.0%

TABLE 6

CANADA PUBLIC INCOME SECURITY SYSTEM

INCOME SECURITY TECHNIQUE	FEDERAL	PROVINCIAL	RECIPIENTS	YEAR OF ENACTMENT
DEMOGRANT	OLD AGE SECURITY		ELDERLY	1951
	FAMILY ALLOWANCES		FAMILIES WITH CHILDREN UNDER 16 YEARS OF AGE	1944
	VETERANS PENSIONS		DISABLED MEMBERS OF THE ARMED FORCES AND THEIR DEPENDENTS	1919
SOCIAL INSURANCE	CANADA PENSION PLAN	QUEBEC PENSION PLAN	INSURED PERSONS + 65, DISABLED AND SURVIVORS	1965
	UNEMPLOYMENT INSURANCE		UNEMPLOYED	1940
		WORKMEN'S COMPENSATION	INJURED WORKERS	1914
SOCIAL ASSISTANCE	CANADA ASSISTANCE PLAN	SOCIAL ASSISTANCE	NEEDY PERSONS	
	WAR VETERANS' ALLOWANCES		DISABLED OR AGED VETERANS IN NEED AND THEIR DEPENDANTS	1930
INCOME SUPPLEMENTATION	GUARANTEED INCOME SUPPLEMENT		ELDERLY RECEIVING OAS WHO HAVE NO OTHER INCOME	1966
		VARIOUS PROVINCIAL SUPPLEMENTS AND TAX CREDITS	ELDERLY AND FAMILIES WITH CHILDREN	
	CHILD TAX CREDIT		FAMILIES WITH CHILDREN	1978

TABLE 7

CANADIAN INCOME SUPPORT SYSTEMS

$ AT RETIREMENT

Single Benefits

Canada Pension Plan - maximum benefit(1982)	$ 307.65 per month
Old Age Security - single benefit	239.73 " "
Total	$ 547.38 " "

Low income cut-off for single person 65+ = $415.00

Couple Benefits

Canada Pension Plan - (wage-earner only)	$ 307.65 per month
Old Age Security - to each	239.73 " "
	239.73 " "
Total	$ 787.11 " "

Low income cut-off for couple 65+ = $523.50

N.B. Neither income (if it is the only income) keeps people off the poverty role

FIGURE 1.

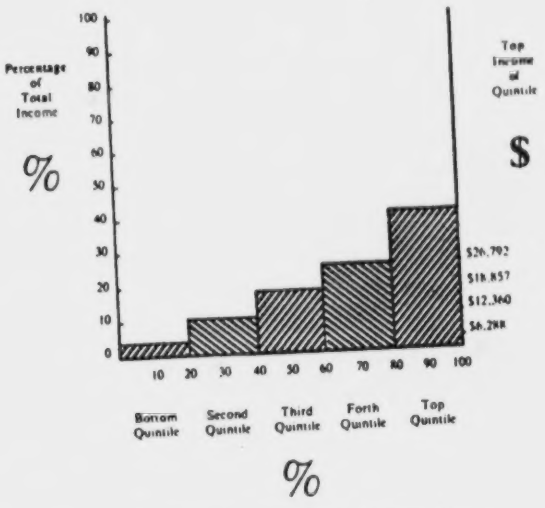
INCOME OF CANADIANS

1985

Average family income	$ 38,059
Median family income	$ 34,076
Average individual income	$ 16,729
Women's earnings as percent of men's	64.9%

FIGURE 2

PERCENTAGE DISTRIBUTION OF THE TOTAL CANADIAN INCOME OF FAMILIES AND UNATTACHED INDIVIDUALS BY QUINTILES, 1978



Percentage of all families and unattached individuals ranked by income.

Source: Statistics Canada, Income Distributions by Size in Canada (preliminary estimates, 1978). The value of the highest income in the top quintile is never released.

Note: The value of the five bars added together equals 100%.

All of Figures 3 through 6 are to be found in Canadian Social Trends, Spring, 1987. Statistics Canada, Ottawa.

FIGURE 3

Low Income Cut-offs (1978 base) by Family Size and Area of Residence, 1985

	Area of residence				
	Urban area by population				Rural areas
	500,000 and more	100,000 to 499,999	30,000 to 99,999	Small urban areas	
	$				
Family size					
2 persons	13,501**	12,815	11,956	11,093	9,891
3 persons	18,061	17,115	15,996	14,880	13,244
4 persons	20,812	19,779	18,490	17,200	15,310
5 persons	24,252	22,963	21,415	19,952	17,803
6 persons	26,488	25,026	23,393	21,758	19,436
" or more persons	29,155	27,606	25,801	23,994	21,415
Unattached individuals	10,233	9,719	9,117	8,429	7,568

Source: Statistics Canada, Catalogue 13-207, *Income Distributions by Size in Canada*

FIGURE 4

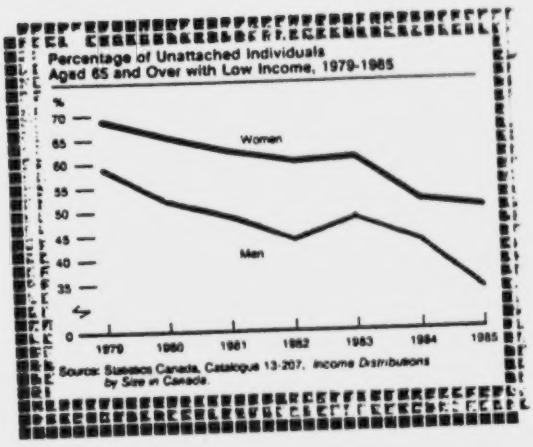


FIGURE 5

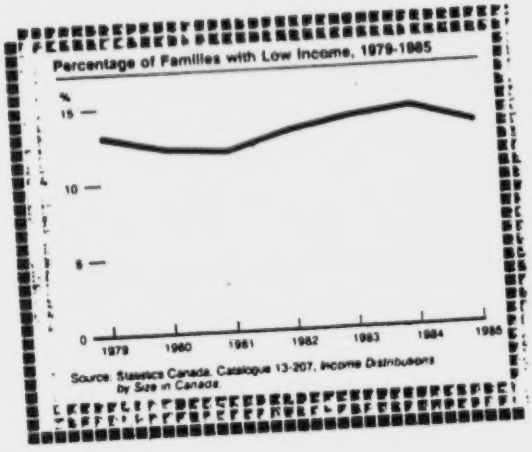
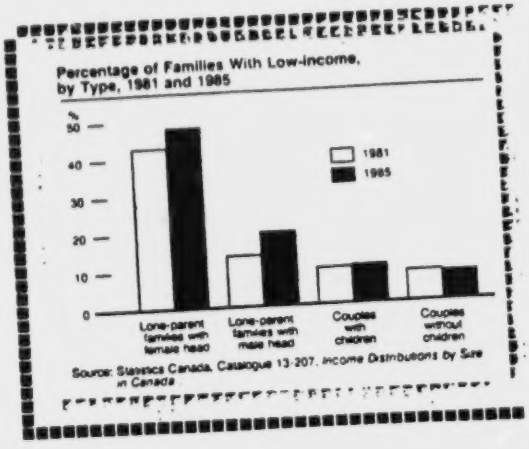


FIGURE 6


Percentage of Families With Low-income, by Type, 1981 and 1985
%
1981
1985
Lone-parent families with female head
Lone-parent families with male head
Couples with children
Couples without children
Source: Statistics Canada, Catalogue 13-207, Income Distributions by Size in Canada

MORE FOR LESS:
THE LOW COST OF UNIVERSAL ACCESS TO HEALTH CARE IN CANADA

Morris L. Barer, Ph.D., The University of British Columbia

The Canadian health care system holds a special fascination for many observers from south of the border. Those who 'love' it see in its experience a 'way out' of the cost spiral which is the American system. Those who hate it do so because it flies in the face of beliefs, clung to with religious fervour, that universal, comprehensive, first dollar medical and hospital care coverage has to (by assumption) be more costly than the incomplete patchwork of insurance coverage for the same services in the United States. Those who ignore it do so on the conviction that, since it was not made in the U.S. it cannot possibly be relevant.[1] I suppose to these three camps I should add a fourth, comprised of those who do not know much about the Canadian system but would like to, before they decide which of the other three teams to join. While I know little about your backgrounds and knowledge of our health care system, it should be clear to whom I target my remarks.

My objectives this morning, constrained as I am by my time allotment and the speed at which I am able to speak, are limited. I would like to begin with some straightforward facts, about health care costs in Canada and the United States, and about the financing of those costs. This will serve to isolate those components of the health care systems where the most striking system cost differences, and differences in private family cost burdens, reside. We will then journey briefly back to 1971, to establish that the opportunity cost differences have emerged only since then. This will prompt some observations based on research undertaken here at UBC, into the determinants of the different experiences on each side of the border. Finally, the dynamics behind the divergent cost experiences beg some comment on what may lie ahead. Can, or should, Canada maintain its enviable record of cost control with universal access and, by and large, without direct charges? Is all serene in the land of universal health insurance?

The Current Cost Experiences

In 1985 total health expenditures in Canada amounted to about $1570 (Canadian) per person.[2] In contrast, a hypothetical Canadian spending 1985 in the United States, and having the misfortune both of incurring the average health care costs of her American counterpart and having to pay in Canadian dollars, would have found herself about $2300 (Canadian) lighter at the end of that year (Health Care Financing Administration, 1987; Canada, Health and Welfare Canada, 1987). Of course much of this 45+ percent differential is a function of exchange rates[3], and we will examine each country's experience relative to its own general economic prosperity shortly. Nevertheless, for a total of $40 billion, in excess of 25 million Canadians enjoyed virtually universal coverage of at least the two major components of health care costs -- hospital and medical care -- and partial coverage of much of the rest.

In contrast, the United States spent $422 billion (U.S.) on 247 million individuals ($1710 per person), while as many as 30 million of those individuals were without coverage of any sort, an additional 20 million or more were severely under-insured in the sense of being exposed to considerable health care cost risk, and virtually all users participated privately in the financing of their hospital and medical care. Canada is the countercheck to claims that the United States could not simultaneously improve access and lower costs!

Allocation of the Health Care Dollar

The distribution of the health care dollar in the two countries shows some similarities, and some remarkable differences (Figure 1). The over-riding caveats are that the reported cost categories are not identical in the two countries, and even where the labels are identical we can never be entirely sure that, for example, anything that is classified as a 'hospital' in Canadian data sources would be so in the U.S. But these need not unduly undermine the major messages.

Most remarkable is the fact that exactly equivalent proportions of the countries' respective health care dollars were spent on "personal health care" (i.e. goods and services actually received personally, in contrast to research, construction, administration, and public health activity). The two countries spend about the same proportions of their health care dollars on hospital care, but Americans spend a smaller proportion on care in other institutions, and a considerably larger proportion on professional services (28.9% vs. 22.5%). Canadians appear to spend a larger

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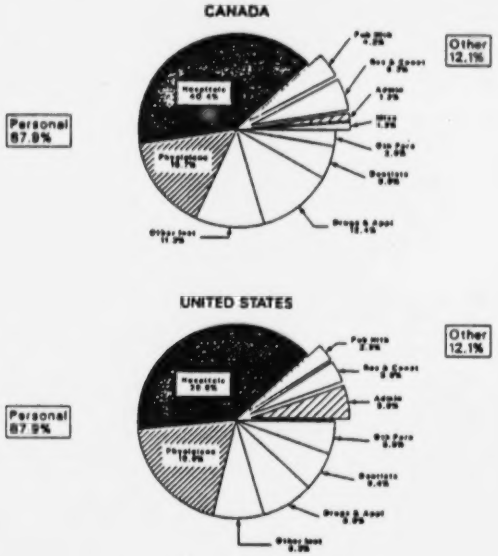
[1] This view is held even by apparently well-informed policy analysts in the U.S. Sapolsky (1986), for example, poses the dilemma for the U.S. as a tradeoff between cost on the one had, and access and quality on the other. "Cost control threatens access..." (p. 636).

[2] While more recent (1986) data are available for the U.S. (even to Canadians), alas such is not the case for Canadian data. Thus, all figures in the following sections are for 1985.

[3] I have assumed a rate of exchange of $1 Can. - $0.74 U.S.

share on pharmaceuticals, prostheses, eyeglasses and the like.

FIGURE 1. Distribution of Total Health Care Costs, Canada and United States, 1985



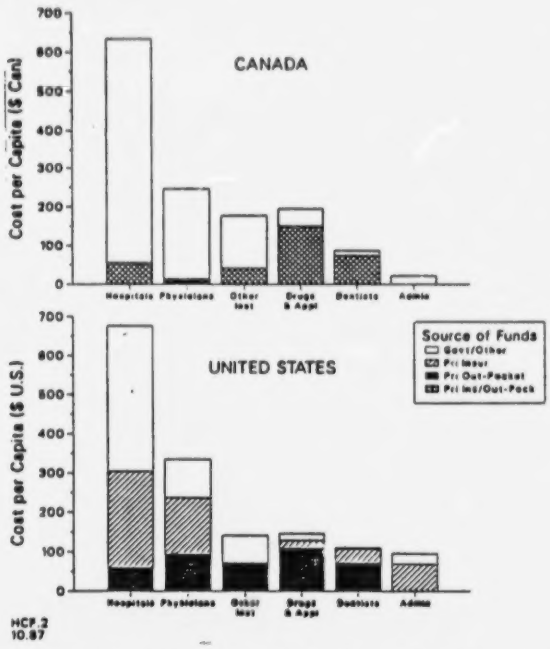
But perhaps the most striking pair of figures resides outside personal health care, in the "administration" category. In the United States this includes not only the costs of administering the public Medicare and Medicaid programs, but the costs of private insurance coverage net of the covered health care costs of the beneficiaries (i.e. the net (after claims) revenues of those insurance companies). Together these items consumed 5.6% of the American health care dollar. In contrast, again debunking the widely held view that 'public' is synonymous with 'inefficient', only 1.3¢ of the Canadian health care dollar is consumed by "overhead".

From Costs to Revenues - Health Care Expenditures are Someone's Costs

But these differences in the distribution of expenditures between the two countries are far less dramatic than differences in the distribution of sources of financing. This is illustrated in Figure 2. Unfortunately the method used by Health and Welfare Canada to estimate private costs precludes the disaggregation of these into their out-of-pocket (point of service) and private insurance components, so that the cross-country comparison is somewhat restricted. Nevertheless, the difference that the Canada-U.S. border makes to personal family burdens is clear.

Canadians' private expenditure in 1985 on hospital care totalled $55 (Cdn) per capita, or less than 9% of hospital costs. Part of this was non-insurable per-diems, and part was semi-private and private room charges, some of which would have been covered by private extended health care benefit packages for employer groups. In stark contrast, Americans spent almost $60 (U.S.) per person in direct charges alone. A further $245 was spent on private coverage! As noted above, this still left many Americans without any coverage.

FIGURE 2. The Role of Private Expenditures in Health Care Financing, Canada and United States, 1985.



Perhaps the most dramatic (and to Americans most disturbing) differences are found for physician care. Not only do Canadians spend significantly less on physician services, but less than 6% of those costs were incurred by way of direct charges in 1985. Furthermore, in the wake of the Canada Health Act in 1984 and, more recently, the Health Care Accessibility Act in Ontario in 1986[4], this figure should, by 1987, be virtually zero. In sharp contrast, Americans spent almost $100 per person (28% of total physician costs) in out-of-pocket point of service charges, and a further $144 in private prepayment premiums. There are still public medical insurance premiums in some provinces, but these are not risk- or experience-rated, and generally amount to well under half the province's medical care costs.

The differences in most of the other selected categories are less dramatic. Nevertheless, they are all in the same direction -- a greater proportion of the costs borne privately in the U.S. Canadians spent an average $41 (Cdn) per person on institutional care other than hospitals, most of which would have been for nursing home care, and most of which would have

[4]A significant share of the extra-billing by physicians in Canada at the time of passage of the Canada Health Act occurred in Ontario. overhead amounted to $21 (Cdn) per capita!

been out-of-pocket rather than covered by private insurance. Nursing home care cost the average American $71 (U.S.) in direct charges. Virtually none of this type of care was covered by private insurance. Again, over half the costs in the U.S. were incurred privately, versus less than a quarter in Canada.

The sharp divergence in the burden of private and public insurance is reinforced in Figure 2. While Americans spent $69 (U.S.) per capita to cover the administrative costs and profits of private insurance (not to mention the $26 for the public programs), the Canadian 'system' overhead amounted to $21 (Cdn) per capita!

Health Care Costs as Other Opportunities Foregone

Of course comparisons of absolute amounts are strained by the fact of having to work with two different currencies. Furthermore, part of where each country found itself in 1985 is a product of differences in general price movements in the two countries, which may only partially be reflected in exchange rate fluctuations. A common approach which circumvents this cross-border comparative difficulty, is to examine each country's allocation of resources to the health care sector, relative to the extent of its entire productive activity (consumption plus gross investment). The Gross National Product (GNP) provides a convenient denominator, or way of counting that latter activity, so that changes in the proportion of GNP 'consumed' by health care are indicative of changes in real resources thus unavailable for other productive activity.

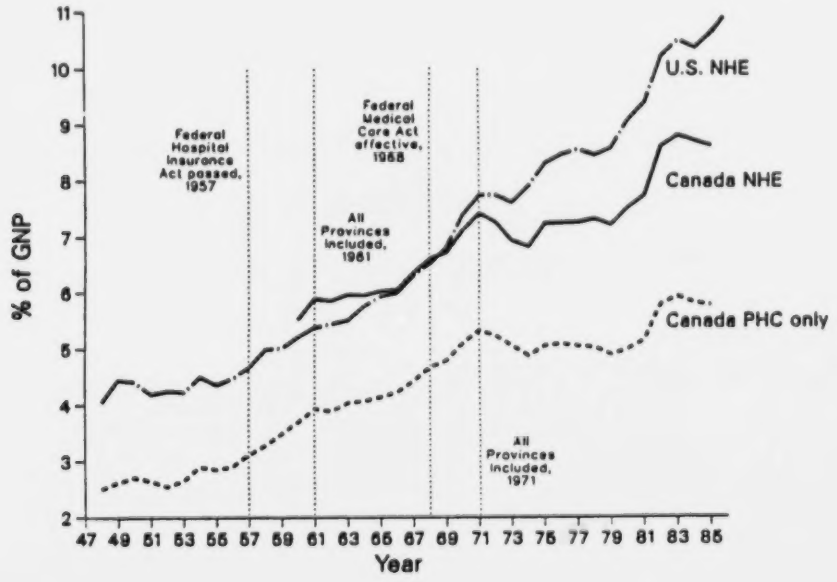
It is when examined from this view that the divergence in experience between the two countries since 1971 becomes most apparent. The year 1971 is not chosen at random, or for convenience. It represents a major change in the Canadian health care financing environment. During that year the final province commenced its public, universal, first-dollar medical insurance plan under the terms and conditions stipulated in the national Medical Care Act of 1966 (Taylor, 1978). By 1971, then, all ten provinces were providing such coverage to virtually all residents for both hospital and medical care, the two major components of health care.

Figure 3 makes the point clearly. In 1971 the two countries devoted virtually identical shares (between 7.5% and 7.7%) of their respective GNP's to health care. Since then the gap has widened steadily, so that by 1985 it stood at 2 percentage points of GNP (10.6% in the U.S., 8.6% in Canada), and growing.[5] In Canada the post-1971 period divides up into the 1970's decade of remarkable stability, the early-1980's jump (at least partially recession-induced) from about 7.6% to 8.6%, and the new 1980's plateau.

The U.S. experience also seems to split into three (non-identical) sub-periods. From 1971 to 1983, the share of GNP going to health care continued roughly along a linear growth path dating back to the mid-1960's, albeit with a

[5]In 1986 the share in the United States was up sharply, to 10.9% (Health Care Financing Administration, 1987), and at least one estimate for 1987 has the figure at 11.4% (Ginzberg, 1987). In contrast, the Canadian figure has ranged from 8.6% to 8.8% since 1982, and has actually been falling slightly since 1983. Preliminary data for Canada indicate that about 8.6% of GNP went to health care in 1986, and the 1987 projection is also 8.6% (Tholl, W., Health and Welfare Canada personal communication, October 1987). If these figures hold up the gap may be almost 3% of GNP in 1987!

FIGURE 3. Health Expenditure as Share of GNP Canada & U.A., 1948-85.



particularly steep rise from 1978 to 1983. The second sub-period consists of one year, 1984, when (triggered by a major decline in hospital utilization) the percent of GNP actually fell (Evans, 1986a). The final sub-period is, of course, the post-1984 experience, when the share of national resources going to health care has resumed its dramatic growth. That share has been projected to reach 15% by the year 2000 (Health Care Financing Administration, 1987). At least on current political sentiments, this will mean increasing private burdens, if not in direct payment, at least in an increasing role for private insurance arrangements. In 1981, private insurance accounted for 26.2% of all personal health care costs in the U.S. (Gibson et al., 1983). Five years later this figure stood at 30.4% (Health Care Financing Administration, 1987).

The Stories Behind the Emerging Gap

On the most recent avaialable data, then, a gap which began in 1971 at about 0.2% of GNP has grown to a point in 1987 where it could conceivably exceed 2.5%. If the U.S. had spent the Canadian share of GNP in 1985, it would have spent **$78 billion** less on health care! All of which prompts the question as to what the American population would have lost if that $78 billion had been available for other things. In other words, what lies behind the divergence in experience between the two countries since 1971?

We can begin to answer this question by disaggregating Figure 3 into its health care sector components. Table 1 contains the pertinent data for 1971 and 1985, for selected components. The two right-most columns report the percentage difference in U.S. experience relative to Canada, in the share of GNP consumed by each health care component. Thus, for example, in 1971 the U.S. share of GNP devoted to physician services was 12% higher than the corresponding share in Canada (1.48% vs. 1.32%).

Clearly the determinants of the divergent experiences are hospital and medical care, precisely the two types of care for which Canadians are universally covered by public insurance programs. From devoting a 14% smaller share of GNP to hospitals in 1971, the U.S. moved during these 14 years to the point of allocating a 20% larger share (for a swing of 1.2% of GNP). Similarly, the U.S. share going to physician services was 12% higher than that in Canada in 1971, 53% higher in 1985 (or a swing of 0.56% of GNP)! Given the relative sizes of these two sectors (they accounted for 59% of U.S. health care costs and 56% of Canadian in 1985), those two shifts account for the entire increase in the gap in share of GNP which has opened up since 1971.

The shifts in the rest of the components have been small, and have been offsetting. Thus the dramatic increase in the U.S. in the share of GNP going for administration and private insurance net revenues has yielded a net increase in U.S. share of GNP (relative to Canada) of 0.21%. This has been almost exactly offset by a swing in the opposite direction (a relative increase in Canada) in shares going to drugs and appliances. The point seems nevertheless worth making, that this gap in administration share of GNP amounts to about $19 billion (U.S.) in 1985. While such a figure assumes that system size would not induce administrative diseconomies of scale, the nature of the functions makes the alternative at least as plausible.

One can only speculate on what underlies the dramatic recent emergence of the administration cost gap. Perhaps private insurers have been enjoying extraordinary margins between revenues and claims, or perhaps it is at least partly a reflection of the increased administrative effort required of the plethora of new regulatory mechanisms in the U.S. -- in the American system environment, cost control may

TABLE 1. Percent of GNP, Selected Health Care Components, Canada and the United States, 1971 and 1985.

	CANADA			UNITED STATES			DIFFERENCE (U.S./Canada)	
	1971(%)	1985(%)	1985/1971	1971(%)	1985(%)	1985/1971	1971(%)	1985(%)
Total Health Care	7.54	8.62	14.32%	7.73	10.57	36.74%	2.52%	22.62%
Personal Health Care	6.57	7.58	15.37%	6.68	9.29	39.07%	1.67%	22.56%
Hospitals	3.33	3.48	4.50%	2.85	4.18	46.67%	-14.41%	20.11%
Other Institutions	0.55	0.97	76.36%	0.52	0.88	69.23%	-5.45%	-9.28%
Physicians	1.32	1.35	2.27%	1.48	2.07	39.86%	12.12%	53.33%
Dentists	0.33	0.47	42.42%	0.47	0.68	44.68%	42.42%	44.68%
Drugs and Appliances	0.92	1.07	16.30%	0.98	0.91	-7.14%	6.52%	-14.95%
Administration	0.13	0.11	-15.38%	0.32	0.59	84.38%	146.15%	436.36%

Sources: United States: Health Care Financing Administration (1987) for 1985 data; Gibson et al. (1983) for 1971 data;
Canada: Canada, Health and Welfare Canada (1987 forthcoming) for 1985 data; Canada, Health and Welfare Canada (n.d. 1984) for 1971 data.

turn out to be costly (Evans, 1986a).

The explanations for the emergence of the gaps in % of GNP going to hospitals and physician services are considerably less speculative. We take hospitals first. The possible culprits are, of course, hospital utilization (i.e. patient days and admissions), the intensity with which those patient days are 'serviced', and the prices of the resources used in that servicing. Between 1971 and 1982, real hospital input prices (deflated by the GNE deflator for each country) rose at virtually the same rate in each country. Furthermore, crude rates of utilization apparently grew at roughly comparable rates. Most of the differential, then, was attributable to the much more rapid growth in the U.S. of servicing intensity per patient day. In other words, the growth in the amounts of real resources (hours of staff, pharmaceuticals and supplies, use of hospital capital) applied to each patient day was much faster over this period in the U.S. than in Canada (Barer and Evans, 1986).
Furthermore, the hospital sector gap in GNP has not widened since 1982. In fact, from 4.4% vs. 3.6% in 1982, it has narrowed ever so slightly, to 4.2% vs 3.5% in 1985. This stability in the absolute size of the % of GNP differential, however, masks some dramatic but offsetting trends. Hospital utilization in the U.S. fell dramatically in 1984 and 1985, but growth in servicing intensity has apparently accelerated. From 1980 to 1985 that intensity increased an average **8 percent per year** (Health Care Financing Administration, 1987). But between 1980 and 1982 the increase averaged only 4.8% (Freeland and Schendler, 1984), implying an average annual increase of 10% from 1982 to 1985. It seems extremely unlikely that Canadian rates of change in servicing intensity were anywhere near close to that. While data currently available do not permit a full disaggregation of causal attribution for the entire period 1971-1985, what does seem clear is that experience since 1982 simply reinforces differences in rates of change in daily servicing intensity as the feature distinguishing the two countries' experiences since 1971.

On the physician services side, there is a different explanation, and here we do have comparative data assembled through to 1985 (Table 2). Real U.S. fees [relative to the GNE deflator] rose 22.3% from 1971 to 1985; in Canada they **fell** 18.9%, implying that real fees in the U.S. rose almost 50% relative to those in Canada over 14 fourteen years. This works out to an **annual** average relative gain of almost 3% (Barer, Evans and Labelle, 1988 forthcoming). While per capita utilization rose faster in Canada than in the U.S., the relative increase was just over 12%, or less than 1% per year over the fourteen years. As the data in Table 2 show, then, the only major difference in the physician services sector was on the price side, and here the difference was so dramatic that it resulted in the emergence by 1985 of a major difference in the % of national product allocated to such services.

In summary, the 'extra $78 billion' implied by the 2% gap in share of GNP would appear to have bought Americans more intensive hospital servicing, and American physicians higher fees. Whether Americans are commensurately better off for this allocation of resources and transfer of wealth is not clear but, thankfully, is a question beyond the more limited scope of this paper.

<u>The Gap Did Not Just Happen</u> - <u>Lessons in Cost Control</u>

Having now identified the extent of the divergence in cost experience, and the sub-sectors responsible, we are left to puzzle over why this should have emerged. What is different about the hospital and physician service sectors in the two countries?

TABLE 2. Explaining the Growth in Physicians' Services in the U.S. Relative to Canada, 1971-1985.

	CANADA			U.S.		
	1971	1985	% Change	1971	1985	% Change
Utilization per Capita (Index)	100.0	167.8	67.8%	100.0	149.4	49.4%
Physicians Per 1000 Population	1.517	2.036	34.2%	1.551	2.166	39.7%
Physicians Fees/ GNE Deflator (Index)	100.0	81.9	(18.1%)	100.0	122.3	22.3%

In fact, it is not the differences in the delivery systems themselves that provides the explanation. On the contrary, the delivery systems were remarkably similar during this 14 years. But 1971 is significant primarily because it marked the completion of a process of restructuring of the financing of health care in Canada. And it is in the financing structures, and the extent to which they can serve as enablers of cost control, that the differences come into sharp relief.

For both hospital and physician services, the first and most important characteristic is the single payor in each province. Provincial Ministries of Health, through an allocation of general tax revenue (and, in a few provinces, medical care premiums) are responsible for the funding of virtually all hospital and medical care (Evans, 1986b).[6] This is essentially the only source of operating funding for physician practices and hospitals. In addition a major portion of the capital costs for the hospital sector is financed through provincial Ministries of Health and, equally important, such initiatives must be approved by those Ministries. Complementing this centralized fiscal responsibility, then, is centralized policy coordination and direction.

On the hospital side, prospective global operating budgets are negotiated annually between the Ministry and each individual hospital. Hospitals are not permitted to deficit finance and, in most instances, know in advance that deficits will not be absorbed by the Ministries. This serves admirably to focus attention on 'staying in the black', although different hospitals have different abilities to harness public sentiment to extract additional funds. Ministry control over global operating budgets has undoubtedly held down rates of increase in servicing intensity per patient day by forcing judicious use of staff by hospital administrators. (The great bulk of hospital per diems are staff costs.)

But of equal importance may be the other side of hospital financing -- capital expenditure. While absolute control over the number of beds will have its greatest impact on hospital utilization, it is in the control of expenditure for other major capital acquisitions, in particular new technology, that the capital side of the control process has likely impacted on servicing intensity per patient day. Since this intensity is defined as operating cost per patient day divided by an input (wages, materials and supplies, food and drugs) price index, the availability of new technology will have the effect of increasing the numerator but not the denominator. It makes more things possible each day, and may mean more staff are required, but does not necessarily affect the prices which determine the institution's operating costs. By maintaining relatively tight rein on the diffusion of new technology, the Ministry is able to wield a second means of control over servicing intensity.

Lest one be led to believe that the relatively slower Canadian growth in daily servicing intensity is all the responsibility of provincial Ministries of Health, there is one other apparent piece to the puzzle. Canadian average lengths of stay have stayed much higher than those in the United States over this period. This seems at least partially attributable to the Canadian 'bed blocker' phenomenon. Chronic care patients in acute care beds means less intensive care and lower daily costs.

On the physician services side, provincial medical associations negotiate periodically with Ministry representatives over increases in uniform (now also binding) fee schedules. The internal weights within the fee schedule are the domain of the profession. With few exceptions, negotiations are over general increases, which are then parcelled out, between specialties and across fee items within specialties, by representatives of the profession (Barer, Evans and Labelle, 1988).

Relative cost control here has been achieved largely by the single payors in each province being extremely hard-nosed at the bargaining table. This has been particularly true in Quebec - in the absence of that one province the Canadian physician price experience would look much more like the American. But the Quebec experience served to demonstrate that fee controls in isolation would not ensure commensurate cost control. In Quebec, a number of concurrent initiatives have followed, each designed to hold cost increases more closely in line with fee increases. These have included fee schedule restructuring, global expenditure caps, and individual physician income caps. More recently, British Columbia has also resorted to partial expenditure caps because, despite relatively generous (by Canadian standards) fee increases since 1971, medical care utilization in that province has continued to grow far faster than might be explained by an aging population and population growth.

While U.S. claims that competition will serve to slow the rate of increase in physician costs continue to surface, the data continue to tell a different story. Physician fees were up 7.2% in 1986, while the U.S. CPI grew 1.9%! (Health Care Financing Administration, 1987). At the same time, the component of physician costs borne privately in direct charges was increasing. Not only does competition seem not to be bringing down prices, but user fees seem not to be slowing aggregate utilization. Physicians in the U.S. continue to be largely isolated from the consequences of their clinical decisions.

Even In Canada Cost Control is Not Costless

Canada's relative success in controlling medical and hospital costs should not be taken to imply that the U.S. has a monopoly on health care

[6]Space precludes any detailed description of the system here. Such descriptions are, in any event, available elsewhere (Evans, 1984; 1986b; Evans and Stoddart, 1986).

system problems. The process and the impact of cost control breed their own unique set of problems. But it is important to distinguish the rhetorical from the actual.[7]

I begin with the 'problems' that aren't. First, cost control has not led to rationing and queuing problems any more severe than one finds in a 'competitive' environment such as that in the U.S. In fact no insurance coverage would seem to be a somewhat more severe (and inequitable) form of rationing than anything one finds in Canada. Second, the relative stability of physician fees has not led to mass out-migration, as has been predicted by some observers of the Canadian system. Nor has it led to declines in the medical school queues. Third, while hospital sector capacity constraint has led to queueing situations, these are the exception rather than the rule. The incidence of capacity constraints affecting quality of care is, we suspect, nowhere near commensurate with the 'noise' created by the fact that the physician/bed ratio in Canada has been rising sharply over the last decade (Barer and Evans, 1986). What is true, however, is that the acute care sector capacity downsizing cannot continue apace, without provision for alternatives such as chronic care facilities and more community care services.

The first of the problems that, indeed, are, is the fact that the system lacks internal incentives for innovation, and these cut both ways. Because the process of integrating new interventions and therapies into reimbursement systems and budgets is bureaucratic and laborious, it is undoubtedly the case that the newest and the best is not always available to Canadians. On balance, however, the "go slow" approach to technology diffusion in Canada has undoubtedly been the cost effective approach relative to the 'market place' alternative, in most instances. Many new innovations develop clinical inertia long before any effectiveness evidence appears, or end up being applied well beyond the boundaries of demonstrated effectiveness.

But the other side of the lack of incentives to innovate is that the inertia of the system itself militates against system organizational innovation. Thus we see no or very little progress toward incorporating the incentives inherent in the HMO concept. While a Canadian variant has been articulated (Stoddart and Seldon, 1984), there has been little progress toward or evidence of commitment to, either public sector competition or HMO variants.

A second problem area results from the fact that cost control by any other view is income control. Frictions between provincial Ministries of Health and medical professional associations in particular are endemic. In the face of a physician supply which will continue to grow considerably faster than the population it serves for the foreseeable future, this source of friction shows no sign of dissipating. If anything, it will get considerably worse before it gets any better, partly because more physicians means more demands for 'physician incomes', and partly because the increasing supply of physicians is competing for a declining or static supply of hospital beds. A byproduct of this 'slack' primary practitioner supply is that personnel such as nurse practitioners and dental nurses have become virtually persona non grata in the Canadian system (Lomas and Barer, 1986).

The third and final problem I wish to comment on today is integrally related to the second. Cost control is a politically bruising process, and is a constant source of pressure for the politicians and the bureaucracy. When confronted with projected increases in health care budgets, provincial treasury boards have three choices. They can choose to hold the line on health care costs and bear the heat from the health care system (and, occasionally, from the public if the system lobbying is sufficiently clever); they can accede to the health care Ministry demands, in which case the Minister of Health must bear the heat from his cabinet colleagues because more revenue to health care means less to the other constituencies; or they can raise additional tax revenue or find some other mechanism for increasing the level of funding of the health care system, at which point the cost control battle is lost.

Can We Keep the Hands out of the Consumers' Pockets, or, Where To For the Canadian System?

The problems with the Canadian system seem to evoke a constant stream of suggested solutions involving increasing financial participation of the consumer/patient. The enactment in 1984 of the Canada Health Act has meant that, as of March 31, 1987, provinces that permit user fees for hospital services (other than semi-private or private room charges) or physician extra billing lose federal transfers on a dollar-for-dollar basis. Between 1984 and 1987 all provinces have moved to eliminate all such direct charges, for obvious reasons.

This has not prevented some provincial elected officials (for example in B.C.), and many representatives of the medical profession, from continuing to call for patient direct financial participation in these two areas. The fact that this would, in practice, require amendments to (or the repeal of) an Act which was passed with all-federal-party support, seems somehow to escape those appealing to the patient pocket.

While such pressures seem extremely unlikely to yield any policy changes, they are of interest for what they reveal about shifting claims and motivations. User fees for physician services, for example, were for many years offered by the medical profession as a means of tempering patient abuse by deterring the seeking of unnecessary care. Implicit in this call for user fees was the promise of **reduced**, or at least not higher, costs. Now, however, the profession argues the need for patient

[7] In what follows I lean heavily on the discussion in Evans (1986b).

participation because of preceived system underfunding -- very explicitly viewing such charges as an additional source of system revenue, and therefore a cost- (and income-) enhancer. Both views cannot be correct and, in fact, the former is not. Not only is there no evidence that user fees deter only unnecessary use, but there is also no evidence that the effect of user fees is one of lowering health care costs.

But the Canada Health Act does not mean patient pockets are entirely safe. The political imperative of seeking alternative revenue sources always means attention eventually swings back, like a pendulum, to health care because of its sheer size. The newest Canadian variants are aimed at re-shaping the boundaries of health care, thereby reducing the extent of full service coverage. In Alberta, for example, a number of services deemed non-medically-necessary are being de-insured. In British Columbia, user fees have been introduced for "supplementary services" (those provided by physiotherapists, naturopaths, massage practitioners, chiropractors, and podiatrists), and for pharmaceutical dispensing fees. Similar initiatives are being implemented, or thought about, in other provinces.

But I do not wish to leave the impression that I am "anti-user participation". Under certain conditions I believe they are a marvellous idea. In particular, situations in which the consumers (patients) are sufficiently well informed about the benefit to them of the service or product in question, and where the patient can 'shop around' for alternatives, seem tailor-made. In addition, situations where a public service overlaps with costs normally borne privately, or where a public service is offered in parallel with private, beg a structure of user fees to promote equity or efficiency or both (Barer, Evans and Stoddart, 1979).

On these criteria, it seems unfortunate that the Canada Health Act precludes the implementation of hospital user fees of a size commensurate with the ingredient cost of the institutional meals. Of course it might turn out that the cost of administering such fees exceeds the revenues generated, but such a decision should be made by institutions on the basis of bottom line considerations, not imposed by regulation.

We may evaluate the latest B.C. initiatives using similar criteria. The $5 per visit charges on selected supplementary services were undoubtedly motivated by the fact that between 1983/84 and 1985/86 total fee-for-service payments for those services increased 8.6% per year. Over the same two years, the annual increase in medical service payments averaged 2.2% (B.C. Ministry of Health, 1984, 1987). The cost of naturopathic services was up over 17% per annum, and that of physiotherapy and massage practitioner services increased 12.4% per annum.

In the absence of a need-based explanation, that extraordinary growth provides the impetus for some policy attention. The trees cannot grow to the sky. But whether $5 user fees were the most appropriate response seems less clear. If some of the services are unnecessary, no public coverage is justified. If some or all are necessary, it is unlikely that the user fee will weed out the necessary from the unnecessary and deter only the latter. It seems more likely that it will deter those who can least afford the $60 (or $75 for seniors) per year in marginal out-of-pocket costs for each type of service.[8]

Particularly hard-hit will be seniors requiringpodiatric services (while those over 65 years of age represent about 12% of B.C.'s population, they use over 60% of the podiatric services; Haazen, D., personal communication, October, 1987).

The rate of growth in these supplementary services raises serious questions about their effectiveness and therefore necessity. That is not to say that such services never have value. Personal experience suggests that at least some of them do, at least some of the time. But to argue that there has been a 7% per capita annual increase in the need for such services seems stretching it just a bit.

Of course there are other things the Ministry might have done. Having gained the experience of negotiating and administering global utilization caps with the physicians, it may seem peculiar that they chose not to implement a similar policy for supplementary services. One possible explanation may be found in the effect of a utilization cap. Such a ceiling, if violated, will in practice induce a commensurate reduction in fees. If visit and procedure fees supplementary services are not considered excessive, a "capping policy" would not be desirable. In addition, if a cap were negotiated now on the basis of the past year's utilization experience, it would `lock in' the major recent increases in servicing, the very cause of policy concern.

Another alternative, however, offers the possibility of solving two problems concurrently whil maintaining consistency with our suggested criteria for the introduction of user fees. While supplementary service utilization has increased dramatically over the last half-decade, at the same time hospitals have been finding the recruitment of staff physiotherapists and occupational therapists increasingly difficult. This suggests a "parallel systems" solution, at least for these supplementary services, which would involve entirely de-insuring coverage of such services when received from private community practitioners, but providing sufficient additional resources to hospitals to allow them to expand their salaried staff capability for providing these services on an outpatient basis. In situations where hospital access is a problem, hospitals might purchase "sessions" from private practitioners. On this solution, patients still desiring the services of private

[8]The Medical Services Plan covers a maximum of 12 visits per year per type of service, except for those over 65 years of age, where 15 visits are covered.

physiotherapists would have the privilege of paying for those services. But the incentive to over-service would be removed, and the cost per service would likely decline as well.

The rationale for introducing patient participation in the cost of pharmaceutical dispensing fees was, I believe, quite different. The details of the policy are that for the population less than 65 years of age, there is a $275 deductible plus a 20% copayment fee on annual expenditures over $275. As of January 1, 1988, this deductible increases to $300 and a $2000 out-of-pocket 'ceiling' will be introduced. For the population 65 and older, there is a copayment of 3/4 of the cost of the dispensing fee, to a maximum of $125 out-of-pocket.[9] The $275 deductible and the subsequent copayment for the general population is reasonable on the grounds that, since pharmaceutical costs are not generally high and unpredictable anyway, such costs are not generally high priority 'insurables' (Evans and Williamson, 1978).

The new dispensing fee copayment is considerably more interesting. Its introduction was prompted by two observations: first, that dispensing fees tend to be too high (that is, out of all proportion to the skill, experience and effort required of the process), and that the rates of growth in the number of "dispensings" has been astronomical. The existing incentives did nothing to encourage "efficient dispensing practices", either on the part of the physician (who would benefit from recalling the patient to check progress and re-subscribe) or the pharmacist (who was clearly better off prescribing 72 pills in three 24 pill lots). The objective of this policy is clearly to reduce the number of 'scrips', and possibly to induce some price shopping. The former seems more likely than the latter and, in fact, there are indications that during the first six months of the policy, gross dispensing costs were down 20% while ingredient costs were unchanged.

In Conclusion

If Canada and the United States stay on their present courses, a number of things seem likely. First, the cost experiences of the respective medical and hospital sectors are likely to continue to diverge, despite DRG's, HMO's, PPO's, and other three letter words. Second, an increasing share of this divergence will be borne by the wide pockets of the U.S. patients, as there is unlikely to be any private involvement in Canada but trends suggest increasing cost shifting of this nature in the U.S.

Third, the cost of system administration seems likely to continue to skyrocket in the U.S. as the attempts to control costs become even more unwieldy and varied. And those costs do not include the considerable policy and regulatory development costs that are the precursors to the actual administration of the new and wonderful cost control initiatives. If one didn't require a program before, one soon will. On the other side of the border, there are no particular pressures which would suggest that health care system administration will consume an increasing share of the nation's GNP.

Fourth, the Canada Health Act does not mean there will be no direct charges to Canadian patients. In fact, removing the two largest programs as targets of government financing initiatives makes almost inevitable the increasing scrutiny underwhich the other segments of the system will fall as governments grope for new sources of revenue. One can only hope that the selection, scope and targeting of such patient participation is guided by the sorts of criteria noted earlier -- that patients should only be asked to bear costs privately where such costs **should** guide informed consumption decisions, or where such costs would have been borne privately, but outside the health care system, anyway. General increases in provincial income taxes always stand as the more equitable alternative means of increasing revenue for health care, unless there is a strong argument for targetting the burden. Of course all this begs the question of the need for increasing revenues. But that is a different (collection of) paper(s).

Fifth, and finally, it seems likely that the Canadian health care system will be a continuing source of fascination to an already converted American minority. But, like the prisoner who has been cell-bound for so long that (s)he is unable to walk out the open cell door, there will be no movement for the foreseeable future in the U.S. toward "socialized insurance". At the very least, the misguided fascination with competition and the marketplace will first have to be exhausted. Unfortunately, that will be an unnecessarily costly, painful catharsis.

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[9]Patients on welfare were shielded by a compensatory $125 annual increase in their GAIN payment. In fact, individuals on welfare who incur total pharmaceutical dispensing costs of less than about $170 annually will be left net beneficiaries of this policy change.

END NOTES

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CONSUMER ISSUES AND CONCERNS IN HEALTH CARE PROVISION

Ada Brown[1]

The Consumer Interest in Health Care

The Consumers' Association of Canada (CAC) has a long record of involvement in health care issues. Our membership does not perceive the consumer interest in health care purely in terms of the consumption of "curative" health care services. CAC has consistently stressed the need for public and private actions to reduce the toll of pain, suffering, illness, and expense occasioned by unsafe products, environmental health hazards and unhealthy lifestyles.

Since the late 1970's, CAC had been a frequent contributor to the national Medicare debate over health care insurance and allocation of health care resources. CAC believes that the majority of the Canadian public desires "a national health care system which protects the right of all ill consumers to have access to high quality health care services based solely on their medical needs."

It is CAC's view that the consumer interest in health care consists in three broad objectives:

1. Recognition of a number of basic rights of health care consumers. These rights, set out in a document entitled "Consumer Rights in Health Care", were endorsed by the CAC board of directors in 1973. They include:
   - the right to be informed;
   - the right to be respected as the individual with the major responsibility for his or her own health care;
   - the right to participate in decision making affecting his or her health;
   - the right to equal access to health care regardless of the individual's economic status, sex, age, creed, ethnic origin and location.

2. Removal of barriers to the realization of these rights. These include economic barriers to equal access (such as extra-billing and user charges); informational barriers to consumer participation in health care decision making; and institutional barriers to consumer representation and opportunities for consumer participation.

3. Positive reforms to create a consumer-oriented health care system.

CAC recognizes that implementing these objectives might require new expenditures. Some, however, would result not only in better services for health care consumers but also in more cost-effective employment of our health care resources, and potentially in an overall saving to Canadians. CAC has advocated the creation of a national health care council with strong consumer representation to provide reliable information and in-depth research on the implications of various health care alternatives.

Consumer Concerns in Health Care Provision

CAC is concerned that Canada's universal health care system is being slowly and steadily eroded. As Federal and Provincial health care budgets have increased, quick-fix bureaucratic decisions have been made which are designed to discourage consumers from using certain services by either delisting them from medical plan coverage or by levying a user fee for each visit. These decisions have been made without consultation with the public who are the consumers of these services and who pay the costs through their premiums and taxes.

What is the reasoning behind these actions to discourage use of health care services? The decision makers accuse consumers of over-consuming services and even abusing the system. Canadian consumers resent being targeted as the cause of rising health care costs.

Contrary to what some health ministry officials and medical spokesmen have suggested, we are not a nation of hypochondriacs or freeloaders!

Most consumers are responsible. They know medical services are costly. They do not enjoy trips to see the doctor, uncomfortable diagnostic tests, painful surgical procedures and confinement in hospital. Moreover, they do not have access to these services unless authorized by a physician.

We believe it is time we all stopped looking for scapegoats and instead directed our cooperative efforts to finding alternative ways to deliver a comprehensive and efficient universal health care system.

We have to adjust to the needs of a growing elderly population and to the availability of new technology with expensive diagnostic tests, dramatic surgical procedures and life-saving transplants.

The public is concerned about the future of health care. Both governments and health care professionals must recognize the need for consumer involvement in any changes to the system.

We believe an informed and involved public would support cost effective measures which also deliver good care. They would help make the system work and would be more accepting of the cost to them as taxpayers.

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[1] President, B.C. Branch, Consumers Association of Canada

THE LOW COST OF UNIVERSAL ACCESS: A REACTION FROM THE MEDICAL PROFESSION

John O'Brien Bell, M.D.[1]

Health is a provincial responsibility under the British North America Act. In 1964, Mr. Justice Emmett Hall, in the first Royal Commission on this topic, enunciated the founding principles of Medicare--that the highest standard of health for Canadians would be maintained, and that doctors would be independent professionals, self-governing, self-disciplining and free to practice where they wish. In 1968, this was implemented as an insurance program, premium related, and the medical profession joined the provincial governments to enter Medicare.

In the 1970's, there was rapid expansion of the "care" programs to 7.4% of the GNP. The 1980's have been characterized as the time of repression and depression with decreased revenues, an increased federal deficit, and 8.5% of the GNP going for Medicare. The provinces are trapped because of unlimited public expectations, federal government cutbacks, and the Canada Health Act.

A recent survey commissioned by the British Columbia Medical Association showed that 1 in 3 British Columbians were concerned that the quality of health care would decline over the next 3 to 5 years. There are many signs of impending decline including hospital bed shortages, nursing shortages, overcrowded emergency departments, extended care patients in acute care beds, rationing of supplies, freezing of hospital budgets, and unacceptably long waiting lists for surgery. Provincial governments, charged with the responsibility for funding their citizen's health, are controlling costs the only way currently available, i.e. by limiting access and global budgeting.

Though costs are not out of control, (in fact, the per capita cost is down), Canada is moving away from the provision of the highest standard of care to Canadians. The Minister of Health of British Columbia has said that the government will provide the highest standard of care that it can afford, i.e. core services. As the differential between the highest standard and best affordable grows, increasing rationing of services will occur. The politician, looking for a scapegoat, turns on both the doctors and the patients--alleging there is overservicing by the doctor who is income seeking, and also overutilization by the patient, who is undisciplined.

The overwhelming majority of doctors in Canada respond to the perceived needs of the patient with integrity and bill the government plans with honesty. To suggest otherwise is untrue.

Doctors are under both economic and professional siege. Today there is an erosion of our professional independence so that doctors are considered by bureaucrats to be dependent contractors. We are, however, an independent profession, and it is very much in the best interest of the public that we remain so. Only as independent professionals can we be effective patient advocates.

Doctors across Canada, through their associations, are the leaders in public education on health care issues. In British Columbia, for example, the Medical Association provides 2 million pamphlets, a speaker service, and a council on health promotion and has been involved in issues such as AIDS, smoking in aircraft, nuclear waste disposal and environmental protection.

I believe strongly that the public not only want but expect doctors to address health and social issues and lead in the formation of public opinion. It was the prime thrust of my BCMA presidency last year and will be the prime thrust of my Canadian Medical Association presidency next year. The media and the doctors are the only two groups in Canadian society who consistently address the total spectrum of health related issues. These include allocation of health care resources, care of the elderly, family violence, AIDS and advertising, and reorganization of psychiatric services in British Columbia.

Too often, both levels of government pay only lip service to issues, such as AIDS. There is a campaign to move doctors out of the decision making process in relation to health care, and a need for a greater managerial role for physicians in the health care system. A doctor inspired system of cost containment will be more relevant and flexible than a government system.

Given this depressing picture, can public funding pay for the health care aspirations of Canadians? Is there an alternative to the government rationing of care with the in-built threat of the development of a second tier being demanded and available only to those able to pay for it? Can Medicare be rescued? Yes, but it will require political courage, professional commitment, common sense and close cooperation between government and doctors.

There are a number of questions that Canadians need to ask in respect of Medicare. Should Medicare cover the results of lifestyle abuse? Can user fees be implemented, when anything that removes from the individual the necessity of payment is bound to be popular? What is a medically insured service?

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[1] Past-President, British Columbia Medical Association; President-Elect, Canadian Medical Association.

The government has limited the entry of doctors into the system. However, the major explosion of personnel into the health care system has been in hospital administration and bureaucracy. Today the courts accept liability, rather than malpractice and negligence, as the basis for compensation so that it is now the competent physician who is at risk. As a result, doctors are moving away from relying on clinical judgement towards a determination that they must not be wrong. We are practicing defensive medicine; there are no Canadian impressions or studies on the costs of defensive medicine on the economics of health care but American authorities have suggested that it could be of the order of 15 to 20 percent of total health costs.

There are changes in respect of liability that could be made by both levels of government that would dramatically change the atmosphere in which doctors practice medicine. Reducing the fear of liability and returning the confidence of clinical judgement to doctors would result in a subsequent reduction of the costs of defensive medicine that alone might reduce health care costs by 15%.

Are we developing a society not only unwilling to accept responsibility and risk, but one which will use liability to cash in on misadventure? How can we impress on the public the danger to society of the concept that the most trivial misadventure becomes a legal challenge? Canada was built on initiative, responsibility and the acceptance that risk is a part of life. The risk today is that we are developing a society unable to take adversity in its stride. We could be in the process of breeding out of Canadians the qualities that built this great country.

Our health care system has been one of the finest--perhaps the finest in the world, offering expertise and technological advances to all Canadians, whatever their income. Today that health care system is on the critical list. The challenge for Canadians is to return Medicare to the standard of excellence on which it was built.

ISSUES AND CONCERNS - BRITISH COLUMBIA MINISTRY OF HEALTH

Paul Pallan[1]

I would confirm the reasons that Canada has been more successful than the United States in controlling costs:

- single source of finding and a single source of policy direction
- global budgeting
- tough negotiating around fees/wages
- control over capital construction
- development of community based services

We do not have a "cost crisis" but we do need to have a planned response which features sound management of the entire health system.

In addition to Morris Barer's observations about U.S. costs, I feel that the U.S. has not been successful because it has made an assumption that competition and market place policies should work effectively in the health system. There are some fundamental problems with this assumption. Firstly, the "flip-side" of competition is often duplication of services and often an increase in total expenditure of the tax-payer. Secondly, in health care, the consumer of services is partially or wholly isolated from the consequences of their decisions. Thirdly, the providers of health care are also generally isolated from the consequences of their decision. In addition, there are restrictions to enter the market place (e.g., nobody can practice medicine unless they meet very specific requirements). Combine these attributes of health care with multiple payors and lack of integrated policy direction, and it is not surprising that U.S. costs have risen in the manner that they have.

Although Canada has been reasonably successful in the last five years (in controlling costs), there are a number of pressures that are facing the system. These include such factors as:

- population growth
- aging of the population
- public expectations
- a surplus of manpower supply in such areas as medicine, dentistry, etc.
- new technology (and inappropriate use of existing technology)
- inflation
- new diseases (e.g., AIDS)

Furthermore the structure of our present system sometimes limits the choice of policy alternatives that are available to control costs. For example, the Canada Health Act provides financial penalties to provinces that have user fees and extra billing in their medical and hospital system. Canada also has a strong historical tradition where health care is seen as a "right" and the medicare program is viewed as one of the most popular public programs offered by government. This degree of public support sometimes limited the policy "room" that a government has to introduce major changes to health care.

Where do we go from here?

The Ministry of Health has conducted several major reviews in the past year or two and some of the major conclusions are:

(a) There needs to be incentives for consumers and providers of health care to be more prudent purchasers of service. For patients, of course, this assumes that they will have enough information to make "an informed choice."

(b) There needs to be continued monitoring over the levels of payment to providers of health care.

(c) Utilization growth, both in the medical and hospital sectors, needs to be managed.

(d) There needs to be a clearly understood definition of where the boundary of public responsibility for health care ends and where personal responsibility begins. The boundary of public responsibility is under pressure from public expectations, new technology and the decision of politicians to introduce new services. Government may have to categorize its services into "necessary" and perhaps "non-necessary/desirable" in order to clarify its responsibilities.

(e) There needs to be greater personal responsibility for health care - either in the form of good health practices but also in the form of user contributions for certain services. Such charges would seem to be appropriate for non-necessary care; for the non-health component of services (eg, room and board charges in a long- term care facility); or in those areas where the consumer can genuinely make an informed choice about their care. Of course, in the Canadian system, there would continue to be a public responsibility to protect lower income individuals from the impact of these charges.

(f) We need to improve our manpower planning - we have surpluses in some professions and shortages in others.

(g) Technology needs to be fully evaluated before it can be used in an optimal manner. In fact, all programs, new or old, should be regularly evaluated.

In summary, the system needs to be flexible, innovative and responsive to rapidly changing times. If we fail to meet this challenge, the quality and efficiency of our health care system will be in jeopardy.

[1] Executive Director, Policy, Planning and Legislation, Ministry of Health, Province of British Columbia

GRADUATE RESEARCH AWARD

The graduate research award is given to a student for outstanding research in home management and family economics. The funds for the first awards were donated by Dr. Gwen Byners. The award has continued to be funded by donations from our members.

The 1987 winner is Dr. Barbara R. Rowe. Her paper "Divorce: The Economic Consequences After Ten or More Years of Marriage" is based on research leading to the completion of her doctoral degree at Oregon State University.

After completion of her degree, Barbara was employed by Utah State University Cooperative Extension Service where she continues her research interest in the area of financial decisions at divorce. She is currently investigating the economic antecedents and consequences of divorce, the economic impacts of divorce decisions, and the adequacy of child support awards. As a result of her research interests and expertise, she was named by Utah's District Court Judges and The Judicial Council to the State Child Support Task Force.

Past Award Winners:

1978	Pam Ferrara, Oregon State University
1979	Kay Henderson, Colorado State University
1984	Sheila Krein, University of Illinois
	Becky Omer Beck, Oregon State University
1985	Martha A. Snider, Oregon State University
1986	Nanci Cumming, University of Nevada, Reno

DIVORCE: THE ECONOMIC CONSEQUENCES AFTER TEN OR MORE YEARS OF MARRIAGE

Barbara R. Rowe, Utah State University Cooperative Extension[1]

ABSTRACT

The purpose of this study was to provide data on the economic aspects of divorce after ten or more years of marriage. Most of the couples interviewed owned homes and tangible personal property, most often furniture and a car. Pensions were the most frequently owned intangible personal property. Assets had been allocated fairly equally between spouses. However, this had not had the effect of putting husbands and wives in similar economic positions. When pre-divorce and post-divorce household incomes were compared, almost all of the movement toward lower income was accounted for by wives.

Introduction

In the past 15 years there have been significant changes in family law. These changes have taken place in legislatures and in the courts. Under the new laws, fault has been eliminated from the grounds for divorce and from the standards for dividing property and awarding alimony.

Recent research (Day and Bahr 1984; Seal 1979; Weitzman 1981; Wishik 1986), suggests that there is a direct link between these legal reforms and an escalating number of impoverished women and children. Such suggestions bear investigation, especially since much of the research has been conducted in one equal distribution community property state, California (Sullea 1985; Wishik 1986). By contrast, most states have adopted some form of "equitable distribution" of property at divorce.

The purpose of this study was to provide data on the economic aspects of divorce in a common-law state with equitable distribution rules. Specifically, to determine what assets were owned by divorcing couples, how those assets were valued for the purpose of division at dissolution, which assets were allocated to wives and which were allocated to husbands, the factors that affected the percentage and type of assets allocated to wives and allocated to husbands, and the effect of asset division on the economic well-being of wives and husbands after divorce.

Oregon Law

In 1971, Oregon became the second state to abolish fault as the basis for dissolution of marriage and as a basis for the award of spousal support and for the determination of property settlements (Leo 1972). The enactment of no-fault dissolution legislation was hailed as a "realistic and generally rational approach to an area of serious legal and social importance" (Leo 1972).

Under earlier Oregon law, courts were required by statute to make a disposition of real and personal property as the courts deemed "just and proper in all circumstances" (Siebert v. Siebert 1948). Evidence of fault, however, remained relevant to what constituted a "just and proper" division of property (McCraw v. McCraw 1962; Morgan v. Morgan 1973).

> As this court has repeatedly and consistently held in making a distribution of the property of the marital community upon the dissolution of marriage, each case rests on its own facts. No formula can be stated, nor percentage given, for all cases. Each case must be viewed independently, for a distribution which is just and proper in one case may not be just and proper in another (Johnson v. Johnson 1966).

This ruling remained unchanged under Oregon's Marriage Annulment and Dissolution Act of 1971, but evidence of misconduct was no longer admissable. Cases decided under the 1971 act followed the property division guidelines set out in Siebert v. Siebert (1948). In Glatt v. Glatt (1979), the Oregon Court of Appeals reaffirmed Siebert (1948) and stated, "the factors (that) ORS 107.105(1)(c) mentions with respect to spousal support determination while not controlling, provide useful guidance in property divisions." Those factors were:

> "(A) The duration of the marriage;
> "(B) The ages of the parties;
> "(C) Their health and conditions;
> "(D) Their work experience and earning capacities;
> "(E) Their financial conditions, resources, and property rights;
> * * * *
> "(H) Such other matters as the court shall deem relevant."

Three years later, the Court said that "In practice, the financial portions of a dissolution decree (spousal support, division of property, and child support) are worked out together, and none can be considered in isolation" (Grove v. Grove 1977).

In 1977, the Oregon Legislative Assembly took another step toward reform of the state's separate property system in declaring that the contributions of homemakers should be granted legal recognition in dividing property and determining support awards (Fetterly 1977; ORS 107.105(f) 1977).

Under the 1971 Act, spousal support could be awarded to a party regardless of fault. The Act

[1] Family Resource Management Specialist and Assistant Professor of Home Economics and Consumer Education

also delineated factors for determining the amount and duration of support: duration of the marriage, ages of the parties, their health, their work experience and earning capacities, their financial resources, the property and custodial provisions of the decree, and the ages, health and dependency conditions of the minor children. The trial court also retained discretion to consider additional factors which the court may deem relevant (ORS 107.105(1)(c) 1974; Stevenson 1976).

In Grove v. Grove (1977), Oregon's Supreme Court discussed extensively the general questions surrounding the award of spousal support. On the question of duration of spousal support, the Court approved the general approach taken by the Court of Appeals in Kitson v. Kitson (1974). To wit, when there is a significant discrepancy between a spouse's probable future income and an income which would maintain the standard of living enjoyed during the marriage, permanent spousal support is usually awarded (Grove v. Grove 1977). The Court concluded that "the most significant factor (in awarding support) is usually whether the wife's property and potential income, including what she can earn or can become capable of earning, will provide her with a standard of living which is not overly disproportionate to the one she enjoyed during the marriage" (Grove v. Grove 1977).

ORS 107.105 was amended by the 1977 Legislative Assembly to include two new factors for a court to consider in awarding support, "the need for maintenance, retraining, or education to enable the spouse to become employable at suitable work or to enable the spouse to pursue career objectives" and recognition of the homemaker spouse "as an economic contributor to the marriage" (ORS 107.105(1)(c)(H) 1977; ORS 107.105(1)(e) 1977). The 1983 Legislative Assembly added several more factors to be considered in awarding spousal support including the contribution by one spouse to the education and earning power of the other, the length of absence from the job market by the dependent spouse and a realistic appraisal of suitable job opportunities, the net spendable income of the parties after assessing tax liabilities or benefits, the costs of health care and life insurance premiums, and the standard of living established during the marriage (ORS 107.105 (1)(d)(C)(F)(H)(J)(K)(L) 1983). These changes also codified the Grove decision by incorporating the "not overly disproportionate to that enjoyed during the marriage" standard (ORS 107.105(1)(d)(E)(M) 1983).

In 1968, Tingen v. Tingen established factors to be weighed in determining child custody, and held that a party's misconduct is relevant only when it directly affects the child's welfare. The 1971 Act eliminated the maternal preference statute (Stevenson 1976). The court's primary concern is now the "best interests of the child," with all other matters being of secondary importance (In re Gaub 1976; Ray v. Ray 1972). In 1981, Oregon's Supreme Court rejected the use of tables or percentage methods which were based on the noncustodial parent's income alone as the appropriate means for determining the amount of child support (O'Donnell 1982). By adopting a "formula method," the Court gave a clear directive that both parents' incomes must be considered in determining the amount of support to be paid by the noncustodial parent (Smith v. Smith 1981). The formula relating incomes of both parents to the child's needs looks like this:

$$\text{obligation of N} = \frac{\text{income of N}}{\text{income of N + income of C}} \times \text{needs of children}$$

where "N" represents the noncustodial parent and "C" represents the custodial parent. Criticism of the Smith decision centered on the Court's lack of guidelines in determining the needs of the child, leaving the trial court to "decide whether ballet lessons, designer jeans ... or even the child's own room, are `needs'" (Allen 1982; Smith 1982).

Methodology

The research sample was drawn from final divorce decrees of marriages lasting ten or more years filed between July 1983 and June 1984 in the Oregon counties of Multnomah, Clackamas, and Washington. These three urban counties make up the majority of the Portland Standard Metropolitan Statistical Area (SMSA) which contains half of the state's population. In these three counties, 2090 divorces were granted in 1982 to couples married ten or more years (Oregon Health Division 1983). A one in four interval formula was used to provide a pool of 566 potential respondents. The number of decrees selected from each county was allocated proportionally to county population. One hundred eighty-eight individuals with verifiable addresses and telephone numbers were contacted by letters and follow-up telephone calls to schedule face-to-face interviews. Seventy-two refused to participate and 116 individuals were interviewed; 67 women and 49 men.

Hypotheses

It was hypothesized that (1) there would be no relationship between the types of assets owned by divorcing couples and (2) the net dollar value of assets owned as related to the parties' ages, education levels, duration of marriage, employment histories, monthly incomes at the time of divorce, and the number and ages of their minor children. For the purpose of this study, each asset was placed into one of these four categories: family home, other real property, tangible personal property (cars, other vehicles, and household furnishings), and intangible personal property (stocks and bonds, pensions, businesses and professional practices, life insurance with a cash value, and bank accounts). A net dollar value of assets was computed by summing all of the asset values retained by each couple and subtracting their outstanding debts.

It was further hypothesized that (3) there would be no relationship between how assets were valued for division and whether husband or wife retained the asset. Two methods of valuation were identified: objective (if some data were used to arrive at an asset's fair market value) and subjective (if no data were used). In addition, (4) there would be no difference in the type of assets allocated to wives and allocated to husbands,

using the four categories of assets previously defined. It was hypothesized that (5) there would be no relationship between equitable distribution and the variables outlined for hypotheses one and two. Additional independent variables included in the analyses were: the number of children with each parent, amount of child support ordered, amount and duration of spousal support ordered, who wanted the divorce most at the beginning and end of the divorce process, whether or not the couple made the decisions regarding asset allocation, net dollar value of assets, and whether any of the four types of assets were owned. A division of assets was considered equitable when either husband or wife received no more than 60 percent or no less than 40 percent of the fair market value of all their assets.

The last hypothesis (6) was based on the results of previous studies which found that no-fault divorce laws have turned out to be an "economic disaster for divorced women ..." (Weitzman 1985). For the purpose of this study, post-divorce economic well-being was determined by the respondent's answer to this question, "Do you think your economic situation now, as compared to before the divorce, is better, somewhat better, about the same, somewhat worse, or worse?" Stepwise multiple regression was used for the analysis. Those independent variables entered into the model, in order, were: respondent's present employment, respondent's age, marital duration, whether or not the couple made the decisions as to asset allocation, net assets retained by respondent, child support paid or received by respondent, respondent's education, amount of spousal support paid or received by respondent, and respondent's gender.

Findings

Characteristics of the Couples

On average, these couples had been married 17 years, with a range of 10 to 48 years. The average age of wives was 40 years; husbands, 43 years. In these 116 divorce cases, 38 percent of the husbands were petitioners in their divorce actions, as were 51 percent of the wives. Eleven percent of the couples were co-petitioners. Eighty-five of the 116 families had from one to four minor children; 31 couples were childfree. Children's ages ranged from one to 20 years, with an average age of 11 years. In Oregon, child support can continue to age 21 if the child is a full-time student under the definition of state law ORS 107.108, so those cases were included.

The median educational level for both wives and husbands was "some post high school" education, although 37 percent of the wives had "some college education," as did 33 percent of the husbands. Graduate degrees were held by 18 percent of the husbands and 11 percent of the wives. Eighty-seven percent of the husbands were working at paid employment at the time of the divorce as were 68 percent of the wives.

Prior to the divorce, 16 percent of the families had incomes of less than $20,000. Incomes between $20,000 and $25,000 were reported for 17 percent of the families; the remaining 67 percent of the families had incomes from $25,000 to $50,000.

Types and Dollar Values of Assets

For most of these couples, the major asset was the family home. Thirty-seven couples owned real estate other than the family home. There was a significant difference in family size between those who did and those who did not own other real property. Those who owned real estate other than a family home had fewer children than those who did not own other real property.

A majority of the couples owned some tangible personal property, such as cars, other vehicles, and household furnishings. However, these assets usually had low monetary values. There was a significant difference between couples who owned intangible personal property and couples who did not own any of these assets. The probability of ownership was greater when wives had more education and more years of paid employment. This probably reflects the fact that women in the labor force are likely to have pensions--one item included in the category "intangible personal property"--although husbands were much more likely to have acquired pensions during the marriage. Other major items of property or assets acquired during the marriage are shown in Table 1 along with the mean and median values of each asset.

As was expected, the amount and value of assets increased significantly with marital duration and the parties' ages. The net dollar value of assets also increased with the number of minor children. The total value of assets divided by these divorcing couples ranged from $100 to $3,351,954 with a mean of $177,375.92 (median $94,810.50). When outstanding mortgages, consumer debts, and real property leins were deducted from asset totals, the range was from a negative -$15,000 to $3,341,954, with a mean of $143,392.99 (median $60,425).

Valuation of Assets

Except for cases that went to trial, court records did not contain complete information about property values. Consumer debts were reported in many cases, but outstanding mortgages only occasionally. (Data from court records and from interviews were compared when possible in order to correct errors.) When the couple made the decisions as to asset allocation, or when the settlement was negotiated by attorneys, financial reporting was almost nil. The face-to-face interviews permitted a determination of <u>how</u> the values of assets which divorcing couples were dividing were established.

For the purpose of this study, two methods of valuation were defined: objective (if some source, such as an independent appraisal, property tax records, Blue Book, classified advertisements, retirement account statements, or bank statements were used); or subjective (if no data were used to arrive at a fair market value). It became apparent after just a few interviews that a third category had to be added, "no value determined," because some couples had divided assets without placing a monetary value on them.

Table 1 includes the methods of valuation used by divorcing couples.

TABLE 1. Types of Dollar Values, Assets, Methods of Valuation.

Asset	% of Couples Owning Each Type Of Asset	Median Value	Objective Valuation	Subjective Valuation	No Specific Value Reported
Family home	84.5	5,000	77.3	13.6	9.1
Other real property	31.9	40,000	64.7	26.5	8.8
Car(s)	99.1	4,000	31.6	29.8	38.6
Other vehicles	37.1	3,000	32.5	30.0	37.5
Household furnishings	100.0	5,050	7.9	21.9	70.2
Bank account(s)	92.2	2,000	56.2	7.6	36.2
Stocks/bonds/ investments	1.9	9,704	65.7	5.7	28.6
Business/ professional practice	9.3	7,000	48.5	30.3	21.2
Insurance	41.4	1,400	53.7	12.2	34.1
Pension	68.1	5,500	30.7	8.0	61.3
Any other asset	28.1	2,460	57.1	25.0	17.9
Debts	92.2	27,525			

What is surprising is that few couples had any idea about the value of their pension fund(s) although Oregon courts had been dividing the value of pensions at divorce since 1976 (Anderson v. Anderson 1976). More couples reported "no value determined" for pensions than for any other asset, except cars and furniture. No significant differences were found between how assets were valued for division and who retained the asset.

The Settlement Process

There are five major decisions where divorcing couples may need to reach agreement: child custody, visitation, child support, spousal support, and division of property (Kressel et al. 1978). About half (56) of the couples reported making these decisions themselves in "kitchen-table" negotiations. Twenty-four couples had their settlements negotiated by attorneys and 20 couples brought their case to court, where the presiding judge had the major responsibility for award decisions.

Even when the couples had made the decisions, it was not without benefit of legal counsel. Both partners had their own attorney in 70 cases, in 17 cases only one spouse was represented. Nine couples used the same attorney; 17 couples filed their divorce papers themselves.

Property Division

Equitable distribution is a method of allocating property upon divorce based on the concept that marriage is a partnership or shared enterprise (Rothman v. Rothman 1974). Oregon law states that all of the real or personal property of either of the parties, or both, is to be divided as is "just and proper in all circumstances" (ORS 107.105(e) (f) 1974). This standard veers away from an absolute 50-50 split, although that is often the goal unless there is a showing of special circumstances (Gildea 1981). In addition, Oregon law does not exclude from consideration assets acquired before the marriage or assets acquired by gift or inheritance. This standard permits the broadest possible distribution of all assets held by either spouse at the time of dissolution (Freed and Foster 1984).

The parent with custody of the minor children was significantly more likely to continue living in the family home, so a higher percentage of homes were retained by wives than by husbands. However, the spouse living in the family home was usually required to make installment payments to the other spouse for his or her share of the equity. A few couples retained joint ownership in the home or sold the home immediately and divided the proceeds.

Real estate other than a family home was more often kept by husbands (18) than by wives (7), but the wife's age, duration of marriage and length of husband's employment significantly affected the allocation of this asset. Wives who kept this asset were younger than wives whose husbands kept the other real estate or wives who divided the value of other real property with their former spouses. Husbands who divided the value of this asset with their wives were both married longer and employed longer than husbands who retained the full value of this asset or husbands whose wives kept the other real property.

The dollar value of the tangible personal property retained by husbands was significantly greater in families with fewer children. Wives were significantly more likely to retain most or all of the couple's tangible personal property when their monthly incomes were below $1,000, or when they wanted the divorce most at the end of the divorce process.

No significant differences were found in the retention of intangible personal property. Businesses and professional practices went predominantely to husbands (23 out of 34 cases), but seven wives retained this asset. One couple divided the family business with the wife taking enough equipment and inventory to start again in another state. In three instances, both spouses kept their own professional practices.

Husbands and wives were equally likely to keep their own pensions in a divorce settlement. Thirty-six percent of the husbands who had pensions kept the full amount of their retirement benefits, as did five percent of the wives who had pensions. Two percent of the wives whose husbands owned pensions received a share of their husband's pension. In 24 percent of the cases,

both husband and wife owned a pension, and each spouse kept his/her own.

Debts were usually divided between husbands and wives, although husbands were more likely to carry a larger amount of debt. The average amount of debt retained by husbands was $20,681.50 (median $5,996). The average amount of debt retained by wives was $15,757.49 (median $4,838.50). When the net dollar value of assets (assets minus debts) retained by wives and by husbands were examined, the average value of wive's net assets was $54,467.50 (median $33,450), and husbands' was $53,002.25 (median $24,612).

Of major interest in this study was the equity of asset allocation. To determine equity of asset allocation, a computed variable, "percentage of assets to wife," was created by dividing the net value of each wife's equity in all assets by the total net value of the couple's assets. It was assumed that the husband received the remaining percentage. Four wives and six husbands assumed debt loads that were greater than the dollar value of the assets retained. Only one significant relationship was found. When a family home was owned, wives received an average of 49.5 percent of the couple's assets. When a family home was not owned, wives received 163.5 percent of the couple's assets (this percentage greater than 100 because the husband's debt load exceeded the value of assets he retained). Since the family home was likely to be the most valuable asset owned by middle-income families, this suggests that when the wife received the "long half," neither a family home nor any other asset of major value was available for division.

Spousal Support

In this sample, 28 percent of the wives had spousal support orders and sixteen percent of the orders were for a specified period ranging from four to 144 months, with a mean of 38.9 months--just over three years. Twelve percent of the wives with support orders received "permanent" support (for the lifetime of either spouse or until the wife's remarriage). The amount of spousal support ranged from $50 to $1,350 a month, with a mean of $432.65 (median $400). It should be noted that five orders called for the amount of support to be "stepped down" over the period for which it was granted. In no instance was spousal support tied to a cost of living increase or increases in the obligor's salary. Ten percent of the wives received a property judgment (other than family home equity) which may be paid in periodic installments similar to spousal support, and half of these women received spousal support as well. At the time the interview was conducted, twenty-five respondents from the group where spousal support was ordered reported paying or receiving the full amount every month, resulting in a compliance rate of 78 percent, comparable with the national average of 77 percent (U.S. Bureau of the Census 1985).

Decisions Pertaining to Children

Three major decisions pertaining to children are found in divorce decrees: custody, visitation, and the amount of child support. The key finding relative to custody was that mothers continued to have custody of some minor children in the majority of cases (78 percent of the 85 cases involving children). Split or joint custody was the arrangement in 29 percent of the cases involving children. Shared parental responsibility took many legal forms. Sometimes, joint custody meant joint legal and physical custody; in some cases, one parent was designated as the primary physical custodian; some couples separated the children so both parents had children in their custody. There was a small, but meaningful, trend in terms of fathers who had custody. In 24 percent of the 85 families with minor children, fathers had custody of some minor children. (These totals add to more than 100 percent because of the number of cases involving split custody.)

Child support was required almost entirely of fathers; in only six cases was a mother required to pay support, and, in two cases, both parents were required to pay support to each other. When the mother is the custodial parent, she is more likely to be awarded child support from the noncustodial parent (76 percent of the 85 cases involving children) than when the father is custodial parent. More frequently, when the father has custody, neither parent is obligated for child support payments. In seven cases involving split custody, the father was also making child support payments to the mother for the children in her care. The amount of child support ranged from $25 to $667 a month, for an average of $209.49 a month (median $188.50). Only two child support orders involved an increase in the amount of support over time.

The reported incidence of arrears for child support, nationally, is very high--especially as time after the decree increases (Eckhardt 1968). In 1983, only 50.5 percent of the custodial parents with child support orders received the full amount due (U.S. Bureau of the Census 1985). In this sample, 72 cases involved orders for child support. Seventy-two percent of the parents with child support orders reported paying or receiving the full amount every month. Twenty percent of the parents with child support orders reported paying or receiving child support "sometimes" or "rarely" and eight percent reported never paying or receiving child support. Several explanations may be possible for this high compliance rate: relatively little time had elapsed between the final decree and the interview, interviewed obligors may be giving "socially acceptable" answers, and, the duration of marriage is longer and parents' ages older for this group than a random sample of all divorces, which could result in higher incomes and a longer period of emotional attachment to dependent children (Luck 1985).

Economic Well-Being After Divorce

Table 2 compares annual household income prior to divorce with annual household income for wives and husbands following the divorce. Two sets of income transfers have been taken into account in the post-divorce income figures. Child and/or spousal support payments have been added to respondent's income when the respondent indicated that it was being paid. Likewise, child and/or spousal support payments have been deducted from income of respondent when the respondent

indicated it was being paid. If respondent had remarried, income from the new spouse was also included, as was any income received from a domestic associate.

TABLE 2. Comparison of Pre-Divorce Household Income and Post-Divorce Household Income of Husbands and Wives.

Income Categories	Pre-Divorce Household Income of Respondents		Post-Divorce Household Income of Respondents: Husbands		Post-Divorce Household Income of Respondents: Wives	
	%	(n)	%	(n)	%	(n)
Less than $5,000	2.6	3	2.0	1	10.4	7
$ 5,000 to $ 9,999	2.6	3	4.1	2	10.4	7
$10,000 to $14,999	4.3	5	4.1	2	22.4	15
$15,000 to $19,999	7.0	8	14.3	7	11.9	8
$20,000 to $24,999	15.7	18	14.3	7	14.9	10
$25,000 to $29,999	13.9	16	12.2	6	10.4	7
$30,000 to $39,999	20.9	24	22.4	11	11.9	8
$40,000 to $49,999	13.9	16	6.1	3	3.0	2
$50,000 or more	19.1	22	20.4	10	4.5	3
TOTAL	100.0	115	100.0	49	100.0	67

Participants were asked to compare their post-divorce economic situation with their pre-divorce economic situation. Fourteen husbands and 14 wives believed their post-divorce economic situations were better. Thirteen wives and 11 husbands said their economic situations were about the same. However, 22 wives believed their post-divorce economic situations were worse, compared to ten husbands. In Table 3, the independent variables entered into the regression model are presented. Total explained variance by the group of independent variables is .42. Only two variables were found to be significant: respondent's present employment and marital duration, together accounting for 16 percent of explained variance.

Respondent's present employment contributed seven percent to explained variability, however, results ran counter to expectation. Unemployed women felt much better off (economically) than the employed. Because this relationship did not appear consistent, there was an examination of participants' answers to a follow-up question. Their answers indicate that the financial situation is made up of more than the total amount of money available. Several respondents, while admitting that their actual income from all sources was less than during the marriage, said control over their present income was the overriding factor. So, feeling better about their post-divorce economic situation was an interaction between the objective economic facts and the subjective meaning given those facts.

A second variable, years married, was found to be significant: the longer the participant had been married, the greater dissatisfaction with their post-divorce economic well-being. For men who participated in the study the concern was with the loss of assets acquired during the marriage and meeting the financial obligations of marital debts and/or child support. The longer they were married, and the older they were, the more

TABLE 3. Multiple Stepwise Regression of Selected Variable on Post-Divorce Economic Well-being.

Term Entered	Beta	Entering F	p-value	r	r^2
Respondent presently employed	1.13276	4.5636	.0369*	.2701	.0729
Respondent's age	-.145214	1.7874	.1866	.3179	.1011
Years married	.176300	6.4553	.0139*	.4404	.1940
Couple-decisions	.559418	3.0019	.0888	.4854	.2357
Respondent's assets	.113108	1.7098	.1966	.5091	.2592
Child support	-.640303	2.3251	.1333	.5387	.2903
Respondent's education	.882152	1.3874	.2395	.6301	.3971
Spousal support	-.671463	.7953	.3771	.6361	.4074
Respondent's gender	.245356	1.4373	.2369	.6524	.4257

(n = 60)

concern there was with having enough time to recoup financially before retirement. For women participants, dissatisfaction was related to salary. The salary levels for most working wives, even wives who had been employed most or all of the marriage, fell far below the salaries earned by most working husbands.

Implications and Recommendations

The findings from this exploratory study suggest the following conclusions:

Most couples divorcing after ten or more years of marriage owned one major asset, the family home. Because mothers were more likely to have minor children living with them, a higher percentage of residence awards went to wives, usually with the provision that they be required to make installment payments to the other spouse for his share of the equity. Given the low incomes of most of these divorced women, their ability to pay the other spouse or to refinance seems doubtful, and an eventual sale of the family home inevitable. Respondents retaining homes in joint ownership with former spouses reported problems in both sales and maintenance. The resident owner reported having responsibility for insurance, taxes, and upkeep and reported that the non-resident owner could control the selling price and/or make the selling process difficult.

One of the major decisions couples must make at divorce is how to value and divide existing assets. In the majority of cases, property values were determined by the husband and wife regardless of whether the couple themselves divided the assets or the property settlement was negotiated

by attorneys. About two-thirds of the couples owned pensions or retirement accounts. These were frequently worth a great deal of money but valued objectively by less than one-third of the couples. Often, in the case of pensions, the respondent would say, "I had mine and she/he had hers/his," without looking at the differences in length of employment, earnings, and future benefits. In most instances couples needed assistance in determining asset values and in understanding the differences between present and future values. This was true not only for pensions but also for family homes with equity judgments.

A greater awareness of financial management during marriage could have helped alleviate serious problems at dissolution. Many respondents who had been in two-earner marriages, particularly when they had been using credit extensively, mentioned how hard it was to manage on only one income. In addition, many participants were uncertain about basic details of family finances such as annual net income, family debts, and monthly cash flow. It was the norm for one spouse to handle all the family finances. Then, when divorce occurred, the other spouse expressed a strong need for financial counseling to straighten out complex debt problems and to learn how to manage his/her money.

Few wives received spousal support, and the median amount of spousal support, among those with spousal support orders, was $400 a month for three years. These minimal support awards created severe hardships for many of the women, especially those who had been full-time homemakers during most of the marriage. Without occupational training and labor market experience, they were compelled to take entry level, low paying positions to meet short-term necessities. They were also faced with the loss of benefits such as health care coverage and pensions. Women today, married or not, will work at paid employment throughout most of their adult years. One clear implication is the need for career/life planning for young women to help them maximize their earning capacities. Also, an awareness on the part of men, of married women's contributions to male earning power and the cost, to women, of years spent out of the labor market.

Child support was usually awarded if there were children under the age of 18, and almost always it was to be paid by fathers. The median amount of child support to be paid was $188.50 a month. At the time these divorces were finalized, the annual cost of raising a 10 or 11 year old child (the average age of minor children in this study) in the West at a moderate cost level was $5,302, or $441.83 per month ("Updated Estimates of Cost ... " 1985). Half of this monthly estimate is $220.92. Therefore, the median amount of child support was less than half the cost of raising the child. The amount of child support is rarely modified upward. Since the cost of raising children increases with inflation and the child's age, support orders are eroded. Over time, custodial parents assume a disproportionate share of the costs of raising their children. When child support orders are evaluated in terms of each parent's ability to pay, mothers typically assume the larger share of the costs of raising their children. In most calculations of the cost of raising children, the major child care expenses borne by the custodial parent are rarely taken into account. Often, for the mother employed full time, the cost of child care alone equalled or exceeded the child support order.

While the amount of property awards is a concern that cannot be ignored, an equally important concern is the lack of income-earning ability of the wives. In many instances there was not enough family property to be divided or enough spousal support which could be awarded to compensate for the low income status of the divorced woman. Fifty-five percent of the wives had "adjusted" annual incomes below $20,000 compared to 24 percent of the husbands. Seventy-five percent of the husbands had incomes above $20,000; 49 percent of them had post-divorce incomes of $30,000 or more. While both parties were affected financially in the short term, it is clear that the relative longer term impact was greater for the wives and children.

Because we more readily understand tangible assets than potential future income, it is easy to conclude that a 50-50 division of a couple's home, furniture, cars, and bank accounts fulfills equity between the spouses. However, it is clear from the adjusted post-divorce income figures that this "equality" structures different economic futures for wives and husbands after divorce. A greater self-sufficiency is expected from women after divorce than ever before, and a need for them to provide for themselves and their dependent children at a time when equality is lacking in employment opportunity, job preparation, and salaries.

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MOBILE FAMILIES' SATISFACTION WITH ECONOMIC AND PERSONAL FACTORS AND ITS RELATION TO STRESS

Peggy S. Berger, Colorado State University[1]

Abstract

Subjects, relocated in the previous year, reported relatively low levels of stress although women reported greater stress than men, moderate levels of satisfaction with their financial situation, and high levels of satisfaction with family relationships. Having relatives living in the new community was associated positively with several aspects of economic satisfaction.

Introduction

In the United States, the mobility rate has slowed from a high of over 20% per year in the 1960s to just over 16% in the mid-1980s. For the first time in a decade, nonmetropolitan areas experienced no net gain in population in 1983. However, the Western states are an exception. The rural population grew more rapidly than the urban population in seven of 13 western states, including Colorado and Wyoming, between 1980 and 1983 (Engels and Forstall, 1985).

Moving from one geographical location to another brings about change. For some, the change is satisfying in itself or, if not, at least interferes little with satisfaction with various life aspects. For others, moving carries the possibility for stress. Stress has been defined as an individual's response to a potentially disturbing or threatening condition (Pearlin, Lieberman, Menaghan, & Mullan, 1981). The stress comes not from the event per se but rather from the responses of an individual or family to the stressor. The same event, e.g., moving, can evoke a variety of beliefs, attitudes, and actions as persons perceive it differently and bring their own set of coping mechanisms to mediate the impact of the event. Thus, the level of stress produced by a move would be expected to vary from family to family and even within families. For example, some research provides evidence that moving is more stressful for women than for men (Ammons, Nelson, & Wodarski, 1982; Imundo, 1974; Kaplan & Glenn, 1978).

Changes inherent in all geographical mobility may be grouped into four types: economic, physical, social, and cultural. Numerous people move for economic reasons. They are being transferred by their employer, are taking a new job, or are looking for work. The number would be even higher if those persons moving in with relatives to reduce expenses or retirees moving to lower their cost of living were counted. Not all moves are economically advantageous. Even if salaries are higher after moving and the employer pays the cost of moving, certain costs usually have to be met by the persons moving. For employed women, the costs may be especially high. The interruption of a wife's career when her spouse is transferred has been noted as a cost of moving. Even if the husband's income increases, the wife's income usually remains the same or even decreases (Duncan & Perrucci, 1976; Jones, 1973; Sandell, 1977).

Physical changes including differences in climate, geographic area, size and attractiveness of the community, and housing are immediately noticeable and are potential stressors. Finally, the social and cultural changes resulting from a move may serve as stressors. The personal relationships, social networks, and the influence and power which have been established over time in the old community must now be reestablished in the new community.

This study was designed to investigate respondents' satisfaction with selected economic and personal dimensions of life following a move, their perceived stress level, and the relation of satisfaction levels to stress levels. Also, whether differences in satisfaction were related to gender, type of move, or the presence of relatives—one type of support system—was examined.

Method

Sample

The data analyzed in this study were collected as part of an eight-state western regional project designed to investigate stress levels and coping strategies of families undergoing social and economic change. Data for recently moved families were collected in Colorado and Wyoming.

Sample eligibility and procedures. To be eligible for inclusion in the Colorado/Wyoming sample, a household had to consist of a two-parent family with at least one child between six and 18 years of age. The family had to have moved within the past 12 months after living three years or longer in the previous location. Research questions also influenced the sampling design. Families moving to the same type (rural-rural; urban-urban) areas were required as well as those moving to a different type of area (rural-urban; urban-rural).

The urban sample came from Colorado; the rural from Wyoming. Colorado data were collected in the Denver metropolitan area which had a population of approximately five million. Only persons who had moved from outside the Denver area were included in the sample. Eliminating Casper, Wyoming, which is the only city in the state with a population of 50,000 or above, the remainder of the state qualified as a nonmetropolitan area. The Wyoming sample was drawn from Cheyenne, Gillette, Laramie, Rawlins, Rock Springs, and Sheridan and included only persons who had moved between communities or states.

The researchers obtained lists of names of householders who had recently moved to the selected rural and urban areas from welcome service companies operating in the communities.

[1]Associate Professor of Family Resource Management

The welcome service companies had gotten their names from utility company hook-ups and court house records. These lists had the advantages for the researchers of allowing intact families with children to be separated from other types of households and of specifying the previous address of the respondents. Telephone calls were made to those households appearing to meet eligibility criteria (single-parent households were not called) to determine if the criteria were met. Questionnaires were then mailed to eligible families with personalized cover letters which randomly specified the gender of the adult family member to respond. This method plus follow-up mailing of postcards and of additional questionnaires as needed produced a response rate of 87%.

Sampling design. Each state collected data from 80 men and 80 women representing 160 families--a total of 320 respondents. Also, respondents were equally divided by type of area (urban or rural) from which they had moved. Thus, equal numbers of both men (40) and women (40) had moved from rural to rural, rural to urban, urban to urban, and urban to rural areas. These comprised the four categories for the "type of move" variable. No attempt was made to match respondents in the four cells.

Instrumentation

The questionnaire included measures of economic and personal satisfaction, perceived stress, mobility history, and demographic/socioeconomic variables.

Economic and personal satisfaction. Earlier research (Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976; Metzen, 1980) has indicated that a person's global or overall sense of well-being stems from his or her satisfaction with experiences in major areas or domains of life. Respondents' satisfaction with aspects of economic adequacy and security and personal relationships and environment were measured on a five-point Likert-type scale with higher scores representing higher satisfaction. Table 1 presents the specific economic and personal variables measured.

Perceived stress. The 14-item Perceived Stress Scale (PSS) (Cohen, Kamarch, & Marmelstein, 1983) was designed to measure the degree of stress perceived by subjects resulting from events or situations occurring in their lives during the last month. PSS is based on the assumption that it is a person's reaction to an event, not the event itself, that leads to stress and that this response is dependent on personal resources, actions, and perceptions (Pearlin et al., 1981). Individual scores on PSS can range from 0 to 56 with higher scores indicating higher perceived stress. For the Colorado/Wyoming sample, a split-half (odd- versus even-numbered questions) reliability coefficient of .80 was found.

Statistical Analysis

Differences by gender in whether moves were made voluntarily or involuntarily and in the major problem viewed as a stressor were determined by chi-square analyses. Three-way analyses of variance (gender by type of move by presence of relatives in the new community) were computed to discover significant main effects and interactions for satisfaction and stress variables. The relationships between the perceived stress and satisfaction variables were examined by Pearson product-moment correlations.

Sample Characteristics

Median age of the respondents was 36 years with an age range from 22 to 58 years. The respondents were highly educated with 43% being college graduates and an additional 30% having some college. Only eight respondents were not high school graduates.

In the years prior to retirement, families move most often for job-related reasons. In this study, three-fourths of the respondents named job/employment as the major reason for their most recent move. Of the sample, 97% of the males and 42% of the females were gainfully employed. Of the women who were not employed, 8% were looking for work. In the United States, the labor force participation rate of married mothers increased from 40% in 1970 to 59% in 1984 (Hayghe, 1984). Thus, the labor force rate of women in this sample was nine percent below the national rate and had perhaps been affected by their recent move.

The high level of education was reflected in the respondents' income level. One-half reported a total gross annual family income of over $40,000; one-fifth had total annual incomes of over $60,000. Only 10% had annual incomes of less than $20,000. In comparison, median family income in the United States in 1984 was $26,400 (U.S. Department of Commerce, 1984). Families currently living in rural communities had the lowest income levels while those living in urban areas had the highest income levels. Approximately 40% of families in rural areas had annual incomes of less than $30,000 compared with 14% who had moved to urban areas from rural communities and 6% of the urban to urban movers. Less than 10% of the rural residents reported an annual income of over $60,000 compared to 31% of urban dwellers.

The mean length of time respondents had lived in their present community was five months with a range of 1 to 12 months. The mean years spent in the place from which respondents had moved was 7.3 years with a range from 4 to 45 years. Approximately 43% of the sample had moved once or twice within the last ten years, 34% had moved three or four times, and 23% had moved five or more times during this same period. About one-fourth of the sample had family members living in the new community when they moved.

Table 1 Mean Perceived Satisfaction with Economic and Personal Variables by Gender and Residence

Perceived Satisfaction	Urban Women (n=80)	Rural Women (n=80)	Urban Men (n=80)	Rural Men (n=80)	Total (n=320)
			Means*		
Economic variables					
Employment status [a]	3.51	3.63	3.86	3.77	3.70
Money for family necessities [b]	3.58	3.32	3.35	3.42	3.42
Ability to handle financial emergencies	3.40	3.29	3.42	3.24	3.34
Level of income [a,b]	3.38	3.42	3.23	3.19	3.31
Amount of money owed [b]	3.10	3.29	2.98	3.02	3.09
Money for family's future needs [b,c]	2.83	2.63	2.66	2.64	2.68
Level of savings [b,c]	2.83	2.54	2.56	2.55	2.64
Personal variables					
Relationship with spouse [a]	4.20	4.23	4.49	4.47	4.35
Family Life [a]	4.13	4.20	4.37	4.34	4.26
Relationship with children	4.14	4.24	4.32	4.26	4.24
Current community	3.92	3.71	3.91	3.84	3.85
Social life	3.50	3.53	3.67	3.45	3.45

* Means ranged from 1 to 5 with higher numbers indicating higher satisfaction.
[a] Variables significantly related to sex of respondent at p=.05 or greater as determined by 3-way analysis of variance.
[b] Variables significantly related to type of move.
[c] Variables significantly related to presence of relatives.

Results

Mobility and Respondents' Economic Situation

When asked if they had wanted to move at the time of their recent relocation, the majority of men (85%) and women (72%) gave an affirmative response. However, women were significantly less likely to have wanted to move than were men (X^2=6.59, df=1, p<.01).

When asked to rate change in their family's financial condition since their move, only 18% said it was worse. In contrast, 35% said it was about the same, 35% said that it was better, and 11% said that it was much better. This variable was not significantly related to respondent's gender, type of move, or presence of relatives in the new community.

Economic Satisfaction

With relatively high income levels and four-fifths of the respondents considering their financial condition to be about the same or better than before moving, these respondents might be expected to be well satisfied with their economic well-being. However, mean satisfaction scores on selected variables tended to range closer to the mid-point of the satisfaction scale than to the upper end (see Table 1). The least satisfaction was with level of savings (M=2.64) and money available for future needs (M=2.68). Respondents were most satisfied with their employment status (M=3.70), their ability to provide for necessities (M=3.42), and their ability to meet financial emergencies (M=3.34).

When analyzed by sex of respondents, two significant differences were found. First, husbands reported significantly lower satisfaction with level of income (F(1,299)=7.05, p<.008) than wives. Secondly, satisfaction with employment status (F(1,299)=5.37, p<.02) varied significantly by sex with women being less satisfied than men. The interaction between the presence of relatives in the community and the respondents' sex was significantly related to satisfaction with employment status. Women were more satisfied if they had relatives present; the opposite was true for men.

Five of the seven questions assessing satisfaction with financial aspects of their lives were significant by type of move: level of income (F(3,299)=6.37, p<.001), money available for necessities (F(3,299)=3.83, p<.01), amount of money owed (F(3,299)=3.77, p<.01), level of savings (F(3,299)=4.68, p<.003), and money for future needs (F(3,299)=5.37, p<.001). Respondents who had moved to rural areas, whether from urban or rural locations, were less satisfied than those moving to urban areas with money for family necessities, their level of savings, and money available for future needs. Conversely, those moving to urban areas were less satisfied

than those going to rural areas with the amount of money owed. Level of income was perceived as more satisfying by respondents moving from the same type of areas as they currently lived--from rural to rural and urban to urban.

Presence of relatives in the community was significantly related to several economic variables. Individuals with relatives present felt a higher degree of satisfaction with their level of savings ($F(1,299)=4.41$, $p<.04$) and their money for future family needs ($F(1,299)=4.30$, $p<.04$) than those without relatives in the community. A trend was also obtained in this direction for amount of money owed ($p<.06$) and ability to meet financial emergencies ($p<.06$).

Personal Satisfaction

The respondents reported high levels of personal satisfaction following their relocation. The highest levels of satisfaction were reported for the relationship with their spouse ($M=4.34$), family life ($M=4.26$), and relationship with children ($M=4.24$) whereas the lowest levels of satisfaction were reported for social life ($M=3.45$) and the community ($M=3.70$). With the exception of social life, respondents were more satisfied with personal than with economic variables and social life was rated as more satisfying than all economic variables except employment status.

By sex of respondent, significant differences were obtained between men and women in their satisfaction with family life ($F(1,299)=5.76$, $p<.02$) and with their spouse ($F(1,299)=9.48$, $p<.002$). Women consistently reported lower levels of satisfaction than men in these areas. No significant differences were found when main effects for presence of relatives in the community or type of move were examined. However, when interactions were examined, a significant interaction between type of move and presence of relatives was found for satisfaction with spouse ($F(3,299)=2.71$, $p<.05$) and satisfaction with relationship with children ($F(3,299)=4.28$, $p<.006$). For individuals moving from rural areas to other rural communities, the presence of relatives in the new community was associated with higher satisfaction with their relationship with their spouse and their children. The data showed little effect of this factor on other types of movers.

Perceived Stress

Stress levels. Overall, respondents reported moderately low levels of stress. With a possible range of perceived stress scores from 0-56 and higher scores indicating more stress, mean scores were as follows: rural men, 18.4; urban men, 21.0; urban women, 22.0; and rural women 22.9. No differences in reported stress levels were found among respondents by type of move or presence of relatives in the community. However, a trend emerged when perceived stress levels were analyzed by sex of respondent. Women reported higher levels of stress than did men ($F(1,299)=3.54$, $p<.06$).

Source of stress. When asked to list the most important problem their family had recently faced, 30% of the sample mentioned problems related to relocation (e.g., opposition of a family member to the move), 20% cited family conflict, and 18% reported a death, illness, or an injury. Only 9% mentioned employment issues and 7% financial problems as their most important problem. The types of problems perceived to be the most important did vary by sex of respondents. Chi-square analyses showed that men were more likely to report employment and financial issues as problems than were women, and women were more likely to list relocation-related issues as the most important problems faced by their families ($X=14.68$, $df=7$, $p<.04$).

Relationship between stress and satisfaction. High levels of stress were found to be consistently related to low levels of satisfaction. As Table 2 indicates, the stress measure used in this study had a significant negative correlation ($p<.001$) with all measures of personal satisfaction and all but one measure (satisfaction with current income) of economic satisfaction. Correlations ranged from -.42 (satisfaction with family life) to -.08 (satisfaction with current income).

Table 2 Correlations between Stress and Economic and Personal Satisfaction Variables

Satisfaction Variables	Perceived Stress Level
Family life	-.42*
Relationship with spouse	-.32*
Employment status	-.31*
Ability to handle emergencies	-.28*
Amount of money owed	-.28*
Social life	-.27*
Money for family necessities	-.27*
Relationship with children	-.22*
Community	-.22*
Money for family's future needs	-.21*
Level of savings	-.16*
Level of income	-.08

* p .001

Discussion

The sample can be characterized as having generally low levels of stress and moderate to high levels of satisfaction with their lives. Moving appeared not to have resulted in a high level of stress in the respondents. With the length of time in the present community ranging from one to 12 months, some respondents' stress, even if present at the time of the move, may have dissipated or been reduced by coping mechanisms by the time of data collection. Too, it should be noted that these respondents had had considerable experience with relocation. From their experience, perhaps they had learned to anticipate and reduce the stress potentially associated with moving. Many of the individuals in this group may, in fact, accept mobility as a way of life.

These families were well off economically. With the majority of the respondents citing employment as the major reason for their family's move and moving voluntarily, we can assume that many moves were made to get a better job, to relocate in an area with more employment opportunities, or at the instigation of their employer. To these respondents, moving could have been viewed as a desirable event. In fact, the inability to move when so doing could improve their job or overall situation, may have been far more stressful than moving, as earlier researchers have found (Fairchild & Tucker, 1982; Goldberg, 1980). Too, most of the families reported being as well off or better off financially after the move than before. It is not known whether the approximately one-fifth who reported their financial situation to be worse after moving did so because of less income, higher living expenses or feeling the effects of moving costs, less attractive employment opportunities, or some combination of these factors.

Most family members who wanted employment were employed after the move; only eight percent of the women and no men were actively seeking employment. Women have been found to be much more likely to move to accommodate their spouses' job changes and transfers than men (Duncan & Perrucci, 1976; Foster, Wallston, & Berger, 1980; Spitze, 1986). In two-career families, such moves may negatively affect wives' employment status and earnings; however, limited research suggests that these effects have disappeared two years after the move (Lichter, 1983; Spitze, 1984). Findings in this study appear to support the above conclusions. Women were significantly more likely than men to have moved involuntarily and to be dissatisfied with their employment status. A person may have been dissatisfied with employment status if not working outside the home when wanting to, if gainfully employed when not being employed was preferable, or may have used this question to express dissatisfaction with working conditions.

After employment status, the economic variables with which respondents were most satisfied were their ability to provide necessities and to handle financial emergencies. The relatively high incomes of the families compared with the total United States population make this finding unsurprising. Nor is it surprising that these families were least satisfied with the level of their savings and the amount of money available for the family's future needs--a variable related to savings and other assets as well as projected earnings. For the two least satisfying variables, the presence of relatives in the community did make a significant difference in increasing the level of satisfaction. The presence of relatives may provide a "cushion of security" with economic and/or emotional support for the newcomers to the community.

With the favorable employment and income situation of respondents and the relatively low level of stress in the sample, the high level of satisfaction with their families could have been predicted. These families certainly had the minimum level of income and employment stability which researchers have found necessary for family stability and cohesion (Cherlin, 1978; Furstenberg, 1974). Also, research has shown that both males and females consistently rank the family domain as more satisfying than other domains such as financial security, work, community, religion, and the like. Characteristics of the sample, including intact families rather than single or divorced persons, employed versus unemployed, and high levels of education and income have been found to be associated with satisfying lives (Campbell et al., 1976).

While the overall stress levels in this study were low, results did indicate that stress and satisfaction are related, with higher satisfaction being associated with lower stress. The results also supported previous findings that moving is more stressful for women than for men (McAllister, Butler & Kaiser, 1973). In addition to women being significantly less likely to want to move than men and tending to have higher levels of stress, the women reported relocation-related problems as "most-important" stressors more often than men. The finding that women were significantly less satisfied than men with family life, their spouses, and their employment status supports the general picture of higher stress and less satisfaction for mobile women than men, regardless of "type of move."

Implications

High rates of mobility are likely to continue to characterize population patterns of the agricultural and energy-dependent West. The roles of formal and informal support systems, e.g., relatives, in helping relocated families adjust need further exploration. Equally important may be services available to families prior to a move. Helping families assess their decision to move, the degree of support in the receiving community compared to their current level, and the advantages of moving can help families be better prepared for the relocation experience. Managerial skills, especially those of organization and communication, can lessen the stressful aspects of the move itself and of adjustment after the move.

Thus, these findings have implications for consumer and family educators, family counselors, corporations and other employers, and others who help families to recognize the likelihood of stress, however short term, surrounding a move and to develop ways of reducing or coping with it. With the widespread Cooperative Extension network throughout the country, integration of families into new surroundings is a goal for which extension is well-suited. Mobile families can use the formal and informal information and education, resource referrals, and networking help provided by extension personnel.

Finally, this research raises a number of issues and questions to be addressed in further research. For example, was the gender difference (even though not a significant difference) found in stress level in this and earlier research due to the fact that the move was made for the husband's career/job or for other reasons? Was the stress in the women's lives related to or caused by the events in the life of their spouses to a greater extent than to their own life

events? Researchers might also assess the extent to which these findings extend across household types, socioeconomic levels, and across time. Adding to the existing body of knowledge for those professionals who come in contact with mobile families can aid in planning appropriate strategies and interventions to reduce stress levels and enhance individual and family well-being.

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MOBILE FAMILIES' SATISFACTION WITH ECONOMIC AND PERSONAL FACTORS AND ITS RELATION TO STRESS: DISCUSSION

Joan M. Ash, Yakima Washington[1]

Abstract

Berger's paper shed light on a topic that has seen a paucity of attention in the past: mobile families' satisfactions and stresses. While there are many studies dealing with stress, there are relatively few focusing on the particular stress of moving. Although Berger's study gave a description of satisfactions and stress, it creates more questions than answers. The essential weakness of the study was a lack of any underlying theoretical framework.

Methodology

One of the strengths of Berger's research is the achievement of a 87% response rate and an equal number of subjects in each of the four sampling groups. It would be important for other researchers to know how many follow-ups were needed to obtain such a high response rate and also to know the content of the follow-ups. One point left unclear in the sampling design was whether or not each sample in the four groups was selected after the data was collected. How exactly did the equal sample sizes in the four groups occur?

While Berger's research had several strengths, it appears to be a part of the growing trend in research that includes small studies which tend to be nonrepresentative and descriptive in nature and attempt to formulate new research questions rather than give definitive answers. There are problems inherent in this kind of research and Berger's paper displays some of these.

A major problem area is the sample used for the study. Only two states were utilized, Colorado and Wyoming. Why were only two states utilized, and are these two states representative of the states in the Western Region?

The sample also included only intact families with children. With the wide variety of family types (single-parent, step-parent, living together unmarried, childfree, homosexual, etc.) why was the family type with the least likelihood of stress selected? With the number of single-parent families headed by women growing at an increasing rate (Glick, 1984) it would be appropriate to include them in a study on family mobility. Single-parent families are burdened by more economic stressors than two-parent families. In 1983, 54% of single-parent families lived in poverty compared with 18% of all families with children (Gelman, 1985). It has also been reported that single-parent families headed by women earn about half as much as those headed by men, averaging about $10,000 annually (Grief, 1985). Also, when a woman separates or divorces, she usually experiences a sharp drop in income ranging from about one-half to one-fourth (Weiss, 1984). Given these economic indications, it would be interesting to discover if single-parent families differ from other families on the measures selected for Berger's study. Overall, it seems appropriate to include a variety of family types in the sample and to select a population base that may be representative of the Western Region.

It was important that both men and women were represented in the study, however, it would have enhanced the validity of the study if both husband and wife pairs were surveyed. There is some evidence suggesting that couple data (data based on husbands and wives from the same marriage) is preferable to either aggregate husband-wife data (data based on husbands and wives from different marriages) or data from wives only (data based on one group of respondents) (Szinovacz, 1983; Thompson & Williams, 1982).

Finally, in respect to the sample, it is interesting that they were for the most part highly educated and well paid. These are people who have the intellectual and material resources to deal with stressful situations accompanying a move. It is not surprising that they did indeed have low levels of stress. The question is, how representative is the sample?

Concerning instrumentation, both the reliability and validity of the instruments utilized were not reported. It would be helpful to know under what circumstances the instruments were used in the past and what were the outcomes.

Future Research

Berger's study did point out an essential difference in the reported stress of men and women. Women reported more stress than men. This points to the need for further research into why women perceive more stress. As Berger suggested, there is a need for further research into the cause of that stress and whether or not it was related to or caused by events in the life of their spouses or due to their own life events. This may include the need for more biographical data from the sample. For example, it may be necessary to ask questions about why the family moved and how each family member perceived the move and the behavioral responses they had to the move. Did they have arguments? If so, what was the content of the arguments? Did the women work prior to the move and were they able to find work after the move? How satisfied were they with their work in both instances? What concerns did the men have about the move in relation to their family members? Did they discuss the move? Did individual family members feel they had a say about the move? Were there any physical or

[1]Family Life Specialist, Yakima Washington

psychological illnesses reported prior to the move or after the move? Also, what were the children's responses to the move, both before and after?

As mentioned earlier, the increasing rate of female-headed households is a possible area for future research. If women in intact families perceive more stress than men, how do women in single-parent households fare? Do they perceive more or less stress and what is the possible cause of that stress? Is it more economic than personal? Would there be differences in dual-career families with and without children? These are just a few of the possibilities for extending Berger's research.

Future Research Design

An overall suggestion for future research is to base it on a theoretical framework, provide a representative sample, and include statistical analysis compatible with the scope of the research. A most popular model for studying stress is the ABCX Formulation Model developed by Hill (1949). In this model, A (the event or stressor) interacts with B (the family's crisis-meeting resources) which interacts with C (the definition the family makes of the event), and these produce X (the amount of crisis the family will experience). Over the years some modifications have been provided by Burr (1973) and by LaVee, McCubbin, and Patterson (1985). Specifically, the Double ABCX Formulation Model of family stress and adaptation was utilized in examining the relocation of army families (LaVee, McCubbin, & Patterson, 1985). The Double ABCX Model has redefined precrisis variables and adds postcrisis variables in an effort to describe the additional life stressors and strains prior to or following the crisis-producing event, the outcome of family processes in response to a pile-up of stressors, and the intervening factors that shape the course of the adaption: family resources, coherences, meanings, and the related coping strategies.

While the Double ABCX Model appears to be a good candidate for studying mobile families, there has been some criticism of the ABCX framework that needs to be taken into consideration. Walker (1985) has suggested that there are "macro" variables that are not attended to in the ABCX framework. Walker suggests that there may be differing contexts of stress and that there are unique perspectives and resources of individual family members related to those contexts. For example, Pratt (1982) showed how illness is affected by its social setting. Walker shows the need to be careful to include not only one's perception of a stressor, but also the context in which the stressor is occurring.

These models tie in closely with Berger's study and could be readily applied. Use of a model would provide the framework to examine relationships among such variables as stressors, resources, perceptions, coping, adaptations, etc. Berger has just touched the surface in examining mobile families. By extending her research utilizing a theoretical framework, one could identify new sources of stress and coping, thus setting the stage for possible prevention and assistance.

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DISCUSSION OF MOBILE FAMILIES SATISFACTION WITH ECONOMIC AND PERSONAL FACTOR AND ITS RELATION TO STRESS

Carol D.H. Harvey, Ph.D.
University of Manitoba, Winnipeg

Peggy Berger gives a good picture of satisfaction and stress levels in mobile families in Denver and Wyoming. She provides information on rural-urban differences, as well as comparisons between men and women. Sampling techniques were well done in the study, with very high rate of return of questionnaires, which is impressive. The analyses performed on the data also appear to be well done. My remarks, therefore, are intended to further stimulate thinking on an issue that is explored well in the paper.

To begin, mobility in families is a timely topic to explore. Not only is moving an event which affects many American families, but also it is relevant in Canada as well. According to 1981 Canadian census information, 23% of Canadians moved to the different census subdivision from where they were living five years earlier. Of the more than four million migrants, 66% moved within the same province, 23% came from a different province, and 11% came from outside Canada (Statistics Canada, 1981). If we add people who moved to a different house within the same census subdivision, 45% of Canadians reported moving within the five years before the 1981 census. Such figures indeed show the importance of knowing factors related to satisfaction and stress of moving.

The sample used in Berger's research was well educated and had high incomes. I would have liked to see more analyses of the effect of education on stress levels within this sample. People with more education may perceive more alternatives to deal with stressors associated with moving. I would also concur with Berger that information received from a low income sample may be quite different. For example, living with relatives may be done by low income families, which would make adjustments to the move quite different from what this sample experienced.

I also wonder if there is a "honeymoon" phase in adjustment to a new location, which is later followed by disallusionment. If this is the case, then data collection at 12 months or less after the move may be too soon.

It would have been useful to know how reasons for moving affect satisfaction and stress. Berger says that three-quarters of the sample cited employment as the major reason for moving. Is this group different from the one-quarter who moved for a different reason?

Not explored here is the effect of return migration. I wondered if any of these respondents had lived in their new location at an earlier point in time. In a study of return migration to Newfoundland, Richling (1985) found patriotic-social reasons for return, with 67% of the sample saying, "Newfoundland is my homeland," as well as familial reasons for return, with 54% wanting to "live near relatives". Like Richling, Berger may have people in the sample who considered the new location "home", a factor which could lessen stress associated with moving.

On the whole Berger is to be congratulated for bringing us a good paper to stimulate our thinking and to bring insight into the topic of family mobility.

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THE CONSERVATION PROCESS: A MODEL AND PRELIMINARY TEST

Molly Longstreth, University of Arizona

Abstract

A general model of conservation is proposed. It is preliminarily tested on energy consumed in 1,287 households in the United States. Conservation is best predicted by baseline consumption. Price and change in percent of income spent on utilities are also important. Several features of the house and household also influence conservation. The results indicate that conservation is dependent upon the household's flexibility in use of the resource, their finances, skills and time constraints as well as price.

Pressures on world resources continue to mount due to a relentlessly growing world population, consequently consumers will continue seeking ways to conserve a variety of resources making conservation more important than ever. Consumers can conserve both indirectly and directly. Indirectly they conserve by purchasing less expensive substitutes for goods containing the more expensive, scarce resource (assuming the higher cost of the particularly scarce resource is reflected in the price of the good). Directly they conserve resources by purchasing fewer goods in general and using the ones they purchase more efficiently, recycling and using less of the especially scarce resource. Direct conservation is the subject of this paper.

We posit that conservation is a process. The process of conservation is insufficiently addressed in the consumer literature which has focused instead on how the market can most efficiently provide goods to consumers and how consumers can make the most efficacious purchase decisions. Efficiency of use is a much more complex topic as it involves knowing the constraints consumers face, and benefits and costs they calculate as well as being able to measure inputs and outputs and to measure them over time. For purposes of this paper the primary output of conservation is the reduction in consumption of the good.

It may be that for most consumers the process of conservation is specific to the resource being conserved. Or, it may be that the process consumers use to conserve is philosophically the same but the practice varies due to the unique qualities of the resource to be conserved. As yet, no comprehensive model of consumers' conservation of resources has been developed and no tests have been made directly comparing conservation of different types of resources. Insight may be gained, however, from models used to investigate consumers' use and conservation of energy from fossil fuels. While most of the energy literature deals with predictors of consumption rather than conservation, a few measures of conservation have been made and the consumption literature can be used to determine benefits of conserving. Some work has investigated consumers' water conservation and money saving patterns but little is known about conservation of other resources such as food, shelter and automobiles, for example.

We assume that the decision-making process of conserving one resource is much the same regardless of the resource being conserved. Therefore, energy provides us with a means for developing and testing a conservation model that may be applied to other resources as well, including water, food and housing.

The purpose of this paper is to propose a formal, comprehensive model of conservation and to preliminarily test it. The energy and water conservation literature provides a conceptual foundation and energy data are used for analysis, but it is hoped that the model will stimulate a broader consideration of the conservation of resources. The data are from a longitudinal random sample of American consumers of energy for the years 1980-81 and 1982-83 from the Residential Energy Consumption Survey (RCS), U.S. Department of Energy (1983, 1985).

MODEL OF CONSERVATION

Conservation is not a good but a process consumers use in allocating resources. Nevertheless, we may look at conservation as a process for which there is a derived demand and apply basic rules of decision-making to it as with goods and services. The type of conservation need not matter, whether it is with regard to fossil fuel energy, personal energy or time, water, food or even money. The basic model explaining the conservation process of each of these resources would be similar but the model specification would vary. For example, in the cases of both water and energy, consumers are constrained by their control of the source; control may vary dramatically for owners and renters. The decision-making model used herein is benefit/cost analysis. Benefit/cost analysis is commonly used to discuss energy conservation because it is broad enough to encompass not only economic factors but also structural, behavioral and attitudinal aspects involved in conserving energy. If the conservation process is similar across resources, the latitude allowed by benefit/cost analysis will be useful in explaining conservation of other resources as well.

Benefit/cost analysis assumes that consumers have good, if not perfect, information; however, in the case of conservation the perfect information assumption may be invalid. Conservation decisions are often complex and made more so by the benefits and costs which extend into the future. The instability of prices of natural

resources and interest rates exacerbate the problem of calculating with certainty the present values of conservation investments. In addition, the energy literature shows that many consumers know little about the mechanics of conservation and about the actual construction of their houses and other relevant equipment (Kempton, Harris, Keith and Weihl, 1982). Thus because of consumers' lack of information, misinformation, and ordinary perceptual distortions, benefit/cost analysis won't completely explain consumers' actual behaviors but it will provide a foundation from which to begin explaining the conservation process.

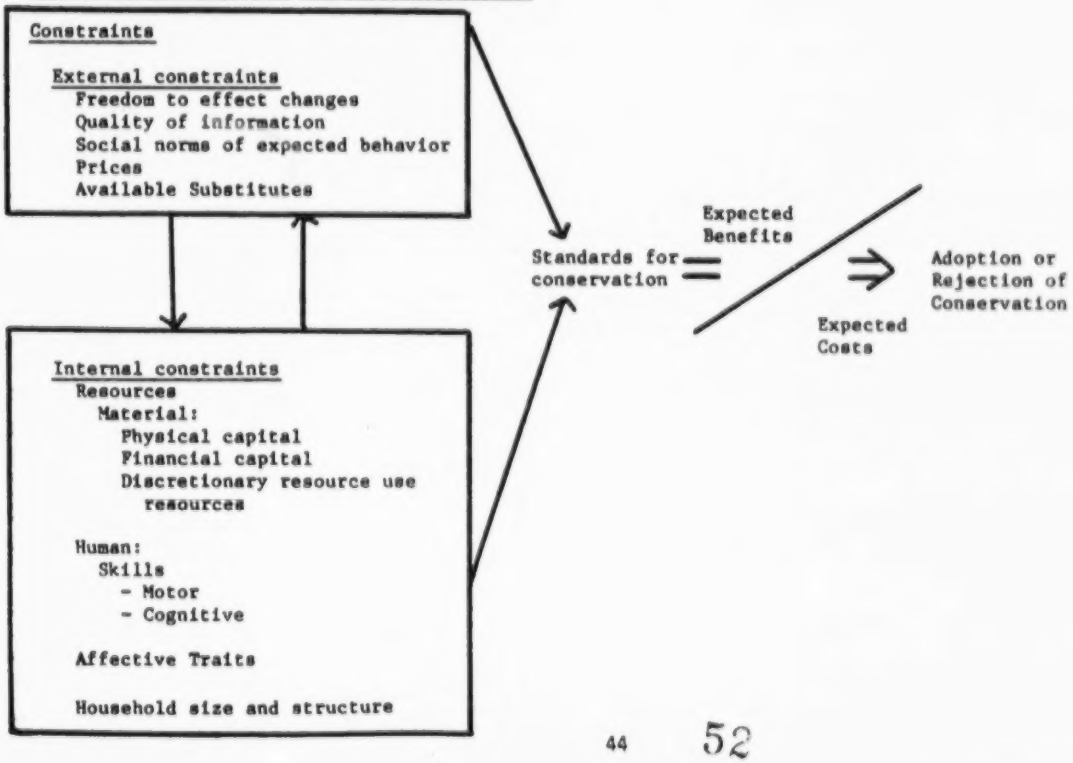
The proposed model of conservation is illustrated in Figure 1. It draws on models of management and posits that consumers operate in households situated in economic, political, social and physical environments. Thus consumers function under both "external" and "internal" constraints. In this model external constraints are those outside the household and over which consumers lack control. Of particular importance in determining conserving behavior are the freedom to effect changes (conserve), the quality of information available, societal norms of expected behavior, and prices. We assume consumers are price takers. In addition, substitutes for the resource facilitate conservation. While lifestyle cutbacks are one method of conserving, use of substitutes might be deemed preferable as they allow maintenance of level of living. Substitute availability may be a function of technology or the economy or other factors.

Internal constraints are defined herein as those occurring within the individual and the household. They are resource contraints including both material and human resources. Material resources particularly relevant to conserving are physical and financial capital. Degree of control over the resource to be conserved will also constrain quantity of conservation effected. Related to the control issue is the extent of discretionary consumption. Human resources include motor and cognitive skills, affective traits of household members and household size and structure.

The arrows between the groups of internal and external constraints indicate that the two types of constraints interact. In addition it is recognized (but not pictorialized) that the constraints within each category may also interact. For example, quality of information affects prices available to consumers and financial capital, skills, affective traits, household size and structure all influence physical capital such as housing.

Both external and internal constraints influence the household's development of standards for conservation. These standards are then influenced by the ratio of benefits and costs effecting a proposed change. The outcome of the decision-making process is then to conserve or not to conserve. The arrows extending from the external and internal constraints to the benefit/cost ratio indicate that these factors influence expected or perceived benefits and costs. For example, cognitive skills and income levels may influence time horizons used to determine the benefit/cost ratio.

Figure 1. Model of adoption of conservation



Benefits

The expected benefits of conservation to consumers (see Table 1) tend to be long-term. They include money saved directly by conserving the good and indirectly by saving complementary resources and may also include time savings if the good saves time, such as with a clock thermostat or reduced landscape watering.

Table 1. Benefits and costs of conservation

EXPECTED BENEFITS

- Money Saved
  - Directly
    - from conserving the resources
  - Indirectly
    - from conserving complementary resources
- Time Saved
- Reduced anxiety from alleviated resource shortage
- Additional gains from altruistic value satisfaction
- Reduced anxiety from personal budgetary concerns
- Additional gains from peer approval
- Additional prestige from innovative leadership
- Additional gains particular to the resource saved, e.g.
  - Expenditures on capital equipment saved
  - gains in personal comfort
  - increased salvage value

EXPECTED COSTS

- Installation costs
  - Price of materials, labor and/or service and credit charges
- Price of maintenance and repair
- Price of time
- Price of effort (human energy) required to conserve
- Costs of peer disapproval
- Psychological costs, e.g. felt losses, felt deprivation
- Health costs

Saving one resource often saves others as well. Taking the bus instead of driving the car saves not only gas but also the life of the car and may add years to the consumer's life through increased exercise and reduced probability of car accident. However, resource savings may also increase use of other resources, such as time. For example, it takes longer to ride a bike or walk than to drive. Consumers as producers have as their goal not the cost minimization of one resource but of all resources used to produce desired output.

Another direct long-term benefit of saving natural and some other resources is increased future availability providing consumers with feelings of enhanced security and a sense of having contributed to the well-being of others. The altruistic benefit of conserving may stem from value satisfaction.

By conserving one resource consumers may consequently gain a different attitude toward consumption of other goods as well. The skills needed to conserve may also be transferable to other types of conservation. The conservation attitude and skills may generate additional savings for the household. The savings from initial and subsequent conservation attempts may reduce financial worries.

Social pressure to conform to a certain mode of consumption would result in either benefits or costs to conservation and is mentioned under both benefits and costs in Table 1. A benefit of social pressure would be social approval, as gained, for example, from installation of a solar system. Social prestige from consumer leadership may be viewed as another form of social approval.

There may also be a variety of other benefits which would vary by type of good conserved. For example, conservation of food might lead to fewer calories consumed and thus a desired weight loss; it might also cause a reassessment of type of food eaten leading to improved health. Another example is that the addition of insulation may raise the sale price of a house.

The last item in the list of benefits in Table 1 is time horizon. It is, of course, not a benefit but influences which benefits will be perceived and length of time over which perceived benefits will be summed. It is thus crucial in determining the extent of conservation to be adopted by the household.

Costs

Expected costs of conserving depend on method of production, among other things. Conservation may be an output of home production and may sometimes be bought directly in the market. Most residential conservation in the U.S. has been through behavioral means, such as setting back the thermostat, which in this model would be considered a form of home production (Frieden and Baker, 1983).

The costs of conserving are outlined in Table 1. A major financial cost is the actual price of purchasing the structural change in the market or purchasing the materials needed for implementing the change via home production. It is a short-term cost if the conservation activity is done only once, as with the installation of insulation, flow restrictors, or purchase of a fuel-efficient car. Maintenance and repair are long-term costs accruing to some resource-conserving capital. For example, fuel-efficient furnaces and cars require tuneups to maintain their efficiency.

Time and human energy costs may be less than, equal to or greater than financial costs of conserving and may be short- or long-run. Buying and installing flow regulators consumes relatively little time, as does hiring the installation of insulation. However, do-it-yourself installation of insulation and car tune-ups are very costly as may be the vigilant setting of thermostats. The last three costs of Table 1 are not often discussed but may be very influential in determining conservation efforts. If the conservation were not an acceptable behavior pattern peers would be likely to criticize.

Other intangible costs of conserving include the deprivation some consumers may feel as a consequence of conserving. The deprivation may be actual, as when a thermostat is set much lower than is comfortable, or the deprivation may be felt rather than actual. In the first case, the worst cost of conservation is the loss of life because of supply curtailments or too cautious use of resources. In the case of felt deprivation, the cost may be perceived loss of prestige or dignity, security or increased anxiety from a perceived loss in level of living.

LITERATURE REVIEW

The literature used to help specify this model is primarily that small subset of the energy literature measuring actual conservation. Information from the consumption literature is used but only as it determines benefits, costs or constraints to conserving.

Constraints

Few of the external constraints listed in Figure 1 have been included in empirical models of energy conservation, however control over resources has been measured by home ownership. Both Fujii and Mak (1984) and Hirst et al. (1981) indicate that home ownership increased conservation efforts.

Of the internal resource constraints, the material are better represented in the literature than the human. Physical capital, in the case of energy, is largely the thermal integrity of the house and depends on many structural components. Some of the most important of these, such as presence of cracks are so difficult to measure they have not been included in the energy economics literature. However, they are proxied by such variables as house age and size. Hirst, Goeltz and Carney (1981) and Smiley (1979) found conservation positively linked with house age although Gladhart (1984) did not. The impact of insulation and other energy-conserving devices is well documented by engineers but economists have yet to produce similar evidence. Gladhart (1984) had preliminary included measures of structural integrity which were important predictors of consumption but omitted them from the analysis of conservation due to their irrelevance. Smiley's (1979) results indicated a positive relationship between existence of prior insulation and additions of insulation. Gladhart's (1984) is the only model including insulation that has been added over time. It sometimes, but rarely, significantly predicted conservation.

Sinden (1978) found a common wall and window insulation the two most important structural factors influencing conservation. Fujii and Mak (1984), however, found no relationship between whether the dwelling was multiple or single family and conservation. Number of rooms heated was inconsistently but positively related to conservation.

Income is the most common measure of financial constraints to conserving and was a more consistent indicator of actual conservation than price in the Fujii and Mak (1984) and Smiley (1979) studies. Hamilton (1983) showed it to be negatively related to water conservation. Income was also important in reports of conservation by Hirst, Goeltz and Carney (1981) and Frieden and Baker (1983). In the latter analysis Frieden and Baker concluded that income and income burden, or percent of income spent on utilities, accounted for the conservation effects they found. Income and income burden were less consistent in predicting conservation in the Gladhart (1984) model but were two of the four statistically significant predictors in the overall models. The only other two significant variables were consumption and price.

Among of discretionary resource use has sometimes been analyzed. Gladhart (1984) analyzed 4 years of data and found base year consumption to be nearly as important as price and more important than income in determining level of conservation. The Gladhart finding of a positive relationship between consumption and conservation was replicated for energy by Hirst et al. (1981) and for water by Hamilton (1983).

The human resource variables measured in the conservation literature have been limited. Education and age are discussed in the benefits section as they relate to time horizon. Household size positively affected purchases of fluorescent lighting (Fujii and Mak, 1984) and larger families were sometimes found Gladhart (1984) to have conserved more than smaller ones. However, they conserved less water than others (Hamilton, 1983).

Benefits

Two thirds of Americans contend they conserve more energy now than they did just a few years ago and believe they can do even more (Meyers and Schipper, 1984). Most of the energy conservation that has been effected has resulted from behavioral rather than structural changes (Frieden and Baker, 1983; Meyers and Schipper, 1984) although Sinden (1978) has carefully estimated that structural improvements may contribute about one-half of the gains to be made in household energy conservation.

Some have found the record of American residential energy conservation to be wanting, possibly as a result of the emphasis consumers have placed on behavioral rather than structural energy-conserving techniques (Frieden and Baker,

1983; Kempton, Harris, Keith and Wiehl, 1982). However, the decision to conserve energy and, undoubtedly, other resources is complex.

Energy consumption and conservation are motivated primarily by economic and structural factors (McDowal, Claxton, Ritchie, Ritchie and Anderson, 1981). Determininants of actual conservation have been made primarily by analyzing purchases of energy-conserving durables cross-sectionally (Fujii and Mak, 1984; Seligman, Darley and Becker, 1978; Hirst, Goeltz and Carney, 1981; Frieden and Baker, 1983; Dillman, Rosa and Dillman, 1983). Only Gladhart's (1984) and Stern et al's (1983) analysis measured change in total energy consumed over time. Hamilton's (1983) analysis of water conservation also measured total consumption. The advantage of studying total consumption is that it captures the combined effects of structural and behavioral conserving measures. It is a rare sort of analysis since accurate consumption data are so difficult to obtain, especially longitudinally.

Expected savings from conservation are a function of the price of the resource to be conserved and the changes in that price. While price is significant in determining consumption, its effect on conservation has been surprisingly less consistent. In Fujii and Mak's (1984) analysis of installation of solar water heating, fluorescent lights, and insulation, the price of energy influenced adoption only in the case of solar water heating. Smiley (1979) also found that price had no impact on the decision to install insulation. However, in Gladhart's (1984) analysis price was crucial in determining conservation expressed as savings in Btus per degree day.

Since expected savings for the average consumer are largely perceptual (Kempton, Harris, Keith and Weihl, 1982), they may also be influenced by income and income changes because of the suspected positive relationship between income and time horizon (Hausman, 1979). Likewise educational level may extend consumers' acceptable payback periods (Olson and Cluett, 1984). Age is likely to be inversely related to time horizon and has been found to be negatively associated with conservation efforts (Seligman, Darley and Becker, 1978). Age was unrelated to conservation in the Gladhart (1984) analysis and not incorporated in the equations of Fujii and Mak (1984) and Smiley (1979).

Costs of Conserving

The major costs of installing conserving devices are the prices of the goods and time to install them. Prices of the energy- conserving durables have not been included in the models described above, nor have indicators of time. There have also been few measures of the deprivation effects of conservation. Time is also a major cost in conservation behaviors. Another cost would be effort or physical energy employed. While it requires little time or energy for an adult to turn off lights, once in the habit, it requires both time and energy to train children to do the same.

EMPIRICAL MODEL

Based on the concepts of the model of conservation presented in Figure 1, findings from the literature reviewed and available measures, the following empirical model was developed.

$$dC = b_o + b_1Age + b_2Space + b_3dSpace + b_4W + b_5AT + b_6STM + b_7STV + b_8Y + b_9dY + b_{10}C + b_{11}T + b_{12}E + b_{13}HS + b_{14}dHS + b_{15}Exp + b_{16}dEXP + b_{17}G + b_{18}T + b_{19}SP + e \quad (1)$$

where:

- dC = total fuel consumption in 1980/81 minus total fuel consumption in 1982/83.
- Age = house age;
- Space = house size;
- dSpace = change in house size;
- W = installation of new hot water heater;
- AT = installation of attic insulation;
- STM = installation of storm windows or doors;
- STV = installation of wood-burning stove;
- Y = income burden;
- dY = change in income burden;
- C = total consumption of utility-purchased fuel in 1980/81;
- T = presence of thermostat;
- E = educational level;
- HS = household size;
- dHS = change in household size;
- Exp = annual expenditure on fuel;
- dExp = change in annual expenditure;
- G = age of household head;
- T = time of adults in labor force;
- SP = whether household head is single parent;
- b_i = regression coefficients;
- e^i = error term.

METHOD

SAMPLE

The sample is a random sample of households in the contiguous United States. Households from Hawaii and Alaska were omitted to ensure privacy. These states had small sample sizes because of small populations. The researchers at the Department of Energy judged the risk of interfering with the privacy of the interviewees great enough to exclude them from the sample. Of the households interviewed in 1980, about 2300 were resurveyed in 1982 (U.S. Dept. of Energy, 1983, 1985). Of these, 1603 lived in the same housing unit in both time periods. Renters were omitted, resulting in 1287 households for this analysis.

DATA

Data for the Residential Energy Consumption Surveys (RECS) were collected in 1980 and 1982. Energy consumption data span two one-year periods, April, 1980 to March, 1981 and April, 1982 to March, 1983. Where inconsistencies existed between answers to the same question over the period, the households were contacted by of the data were collected with interviews and 4 percent with mail questionnaires (U.S. Dept. of Energy, 1983, 1985).

ANALYSIS AND VARIABLES

The analysis included a description of sample members. An empirical model was developed and tested with regression analysis.

All variables used in the empirical model are defined in Table 2. The dependent variable was the change in total Btus of energy consumed between 1981 and 1983, excluding wood consumption.

Constraints of physical capital, or thermal integrity, were measured with year the house was built, house size and change in same, as well as installation of various energy-conserving features over the period. Financial constraints were measured with income burden and change in same. Income was excluded due to collinearity.

Discretionary consumption was indicated by the most general measure of discretionary consumption, total consumption in the base or initial year, 1980/81. Base year consumption is an inadequate measure of discretionary and nondiscretionary consumption but it is better than no measure at all.

Control over the resource was partially accounted for since all members owned their homes but control was also measured with whether the house had a thermostat. Education and age were also included to indicate skill levels, time horizon and age, for cost of effort. Household size and change in size were included to measure the family's use, impact on leakiness, demands for energy and quantity and diversity of skills available to the household.

Expected benefits to conserving were measured by the average base period price of the primary fuel used for heating and change in same. Marginal price was available only for electricity and thus was not used in this analysis. As mentioned earlier, age and education were also included as indicators of time horizon which influences calculations of benefits.

Expected costs of energy-conserving durables were not available but time costs were inferred in two ways. The first measure indicates whether the single adult head or both adults worked full-time in the labor market. The second measure of time costs is a dummy variable indicating whether the adult was a single parent.

RESULTS

The sample is described in Table 2. The average age was 50 years and they had 12 years of school. Households contained 3 members and slightly declined in size over the time period. Average household income in 1979 was $27,445 in 1983 dollars, and approximately 8 percent was devoted to energy bills. Income burden increased .1 percent between 1981 and 1983.

Table 2. Definitions, Means and Expected Signs of Variables.

	Mean (Standard) (Deviation)	Expected Sign
Dependent Variable		
Btus of electricity, natural gas, LP gas and fuel oil consumed 4/80-3/81 per degree day	128239.38 (62033.25)	
Btus of electricity, natural gas, Lp gas and fuel oil consumed 4/82-3/83, per degree day	115468.96 (55974.10)	
Change in consumption, 1981-1983	12770.42 (36000.21)	
Independent Variables[1]		
Constraints		
Year house was built	3.89 (2.54)	+
House size in square feet	2171.69 (1051.00)	?
Change in house size between 1981 and 1983	-14.64 (664.03)	-
Installation of		
Attic insulation	.124 (.330)	+
New wood-burning stove	.06 (.24)	+
Storm doors/windows	.462 (.50)	+
New water heater	.09 (.29)	+
Household income in 1979	27445.67 (14566.32)	+
Utility bill as percent of income in 1979 (Income burden)	.04 (.05)	-
Change in burden between 1981 and 1983	.04 (.08)	-
Whether household has a thermostat	.914 (.37)	+
Educational level of household head	12.04 (3.28)	+
Household size	2.96 (1.53)	+
Change in household size	-.073 (.84)	-

Table 2. (Continued)

	Mean (Standard) (Deviation)	Expected Sign
Expected Benefits		
Expenditure per btu for primary heating fuel	.004 (.003)	+
Change in expenditures	.005 (-.005)	+
Age of household head	50.27 (15.89)	-
Expected Costs		
Both spouses or single head work in labor force full-time	.55 (.50)	-
One spouse in single head work in labor force part-time	.09 (.29)	-
Whether household head single parent	.082 (.274)	

[1]These are from 1980, the base year, as appropriate.

Ninety percent of sample members lived in completely detached housing and 91 percent had thermostats in their homes. The dwellings averaged more than 2100 square feet in total living area and were built between 1950 and 1964. Nearly all, 97 percent, paid their own utility bills.

Between 1980 and the time of the interview in 1982 or 1983 approximately 12 percent of these households had added attic insulation, 5 percent, wall insulation and 4 percent, floor insulation. Thirteen percent had added a new heating system (primarily wood-burning stoves), 13 percent a new water heater, 9 percent a new air conditioner and 4 percent a clock thermostat. Seven percent had improved their heating/cooling or water heating systems by wrapping pipes or ducts with insulation, and changing to electronic ignitions. In addition, 42 percent had installed shutters, plastic over their windows, or sealed cracks around doors and/or windows. Forty-six percent had added storm windows or doors.

Between 1981 and 1983 respondents had saved about .9 of a Btu per degree day or about one-twentieth of their average consumption, a statistically significant saving. Forty-five percent had increased their consumption of fuel while 55 percent had decreased theirs. Those increasing consumption did so by about 24 percent while conservers saved about 18 percent.

As Table 3 shows, regression analysis of the model explained 21 percent of the variance in the dependent variable. Some of the constraint variables were strongly related to degree of conservation of energy; however, the indicators of physical capital, thermal integrity, performed contrary to expectations. Year built was unrelated to conservation and those in larger houses consumed more over the period. As expected, those who had added space over the period used more energy than those not adding space. Larger households also conserved less per household and as household size increased they increased use of energy, as expected. House and household size may have been accounting for the omitted income variable as well.

Table 3. Results of Regression Analysis -- Dependent Variable: Btus per Degree Day, n = 1287[1]

Independent Variables	Regression Coefficient (Standard Errors)
Constraints	
Year built	.06 (.07)
House size	-.0007**** (-.0002)
House size change	-.0005** (.0003)
Installation of new Water heater	-1.87**** (.54)
Attic insulation	.30 (.56)
Storm windows or doors	.31 (.42)
Wood-burning stove	3.26**** (.79)
Income burden	-2.45 (3.44)
Burden change	-11.78**** (2.05)
1980-1981 consumption	.29**** (.02)
Thermostat	-.72 (.50)
Education	-.29**** (.06)
Household size	-.25** (.13)
Household size change	-1.04**** (.19)
Expected Benefits	
Age of head	-.01 (.01)
Expenditure	231.71**** (55.84)
Expenditure change	86.62*** (34.55)
Expected Costs	
Full time work	-.04 (.37)
Single parenthood	-1.37** (.62)
Constant	.41 (1.39)
Adjusted R^2	.23
F	21.12****

[1] *p≤.10, ** p≤.05, *** p≤.01, **** p≤.001

Installation of conserving devices, attic insulation and storm doors and windows, had no effect on total fuel consumption when all other factors were held constant (Table 3). Several different variables measuring energy-conserving devices were tried but multicollinearity was a problem. Collinearity was low among the four variables included in this model, yet addition of neither ceiling insulation nor storm windows or doors appears to have reduced consumption. Installation of a new water heater increased consumption, probably due to expanded capacity. Installation of a wood-burning stove reduced dependent variable but doesn't necessarily decrease consumption since one type of fuel is being substituted for another.

The signs on the measures of financial capital, income burden, were as expected, but the baseline measure, income burden in 1980/81, did not significantly effect conservation efforts.

However, households whose energy burden increased over the period conserved less than other households and the effect was significant. Income and income burden are correlated at -.50, indicating that high burden doesn't necessarily imply very low income. However, the income range in this data set was also rather low, with a maximum of $35,000, but median income was high. The standardized regression coefficients (not reported here) show that the strongest predictor of conservation was baseline consumption. Those with higher baseline consumption are more likely to conserve. Resources are most easily conserved if there is discretionary consumption.

The measure of control over the resource, having a thermostat, did not influence conservation and educational level was negatively correlated with conservation. The negative relationship between education and conservation may be accounting for income which was excluded due to collinearity with income burden. However, other researchers (Longstreth, 1986; Cunningham and Lopreto, 1977) have been puzzled by the relationship between education and energy conservation. Cunningham and Lopreto (1977) for example, found no relationship between education and conservation but indicated that those in lower socio-economic groups conserved because they felt it was necessary for continued economic well-being. Future research needs to investigate the relationship between knowledge of the insulating process and conservation because lower levels of formal education may be associated with higher handicraft or construction skills which would facilitate energy-conserving improvements due to the lower costs and possibly greater inclination.

The measures of expected benefits of conservation, baseline expenditures and expenditure increases over the period induced conservation. The effect of both of these variables was strong but according to the standardized coefficients (not reported), expenditures were second to total consumption in accounting for energy savings.

Age of the household head was included as an indicator of both time horizon and the cost of effort. Because it was felt that the time horizon effort would outweigh the time costs. Older people were thus expected to conserve less than younger people. As Table 3 shows, age had no effect on conservation however, which may indicate that the time available to make household improvements is as important as time.

The other measures of costs focused on the costs of time. Time in the labor force had no effect on conservation; however, single parents conserved significantly less than did other households.

DISCUSSION AND CONCLUSIONS

At various times estimates have been made of the potential savings in fuel consumption that could be made with conservation; 30-40 percent savings have not uncommonly been projected (Frieden and Baker, 1983, p. 445). These data indicate that over the 1980 to 1983 period about half of the sample reduced their consumption of Btus per degree day an average of nearly 20 percent. On the other hand, nearly as many homeowners increased their consumption by more than 20 percent.

Estimates of this conservation model substantiate the findings of others that expenditure proxying for price is important but not the only factor influencing conservation. In this case quantity consumed was more important. The baseline consumption variable will retain importance as more and more people improve the efficiency of their dwellings, leaving less and less room for improvement. Because price has been such a strong determinant of consumption and because it requires no appropriation, policymakers have relied upon it almost exclusively to stimulate conservation. However, these results and others indicate the need to stimulate conservation by other means as well. Consumption would be an easy way for utility companies to target consumers with high potential for successfully conserving. Information and encouragement might be particularly effective with those whose consumption exceeds a generous level.

Conservation was inversely related to income burden re-emphasizing that conservation depends upon having the financial resources to conserve. These findings also indicate that if those with higher burdens conserved using behavioral measures primarily, as suggested by Dillman et al. (Dillman, Rosa and Dillman, 1983), the behavioral means were ineffective.

The negative sign on the education variable may mean that having the skills to conserve results in savings. Time costs undoubtedly also influence the process as in the case of single parent households. In addition, single parents tend to be women and have traditionally not undertaken the household construction work needed to conserve energy without the financial resources to purchase the investments. Their

lower incomes also preclude purchase of the investments. However, this may be a group to which energy conservation programs could be targeted effectively. For the reasons discussed above single parents may not have been as responsive as other market segments to generalized utility company campaigns but because of financial need might be interested in conserving if they were provided specific information and aid designed to fit their particular resource constraints.

The disappointing effect of the conserving features in this estimate was also found by Douthitt (1986) in her model of consumption where multicollinearity was also a problem. Conservers make a variety of changes but compensation may behaviors are increases in resource use made by consumers after installing resource-conserving devices. Consumers may feel they can raise the thermostat a few degrees knowing that the insulation is using the energy more efficiently; or they may take longer showers since less water is pouring from the faucet per unit of time.

Estimating conservation over one short period provides but a glimpse at the process.

Nevertheless, an attempt to measure conservation may provide insight into behavior that measures of consumption cannot. For example, the consumption literature indicates that those in older, larger houses consume more. The conservation analysis extends this to show they do not necessarily conserve more although they have the incentive to do so. Another major advantage, according to this model, is that consumption may be used to predict who conserves.

The conservation model proposed in this paper indicates the substantial complexities of decisions to conserve. Thus the model alone points to the inadequacy of conservation policy for any resource which relies on only one variable such as price. The model also indicates, as have the energy and water conservation literatures, that consumers' values and skills will influence the perception of benefits and costs of conserving and thus are also important in determining whether and to what extent people will conserve. These findings indicate that the installation of resource-conserving equipment is insufficient to reduce consumption because simultaneous changes in behavior may undermine the intended outcome.

Because of the complexity of the conservation process we need to continue working on measures of social and psychological factors influencing the process. Reliance on technical and economic measures alone does not adequately explain the process of conservation (Smiley, 1979; U.S. Department of Energy, 1983).

The study of consumption is, of course, helpful to consumers and to businesses. Conservation is, however, not as useful to most businesses (although utility companies are now realizing its salience). But conservation is potentially very important to family and societal well-being as the pool of physical resources is shrinking and the demand for them is escalating. Thus the process of conservation merits closer attention and better data bases with which to study it.

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A RESPONSE TO
THE CONSERVATION PROCESS: A MODEL AND PRELIMINARY TEST

Virginia A. Haldeman, University of Nevada-Reno

The components of the conceptual model developed by Longstreth and Topliff are similar to those in the model developed by Haldeman, Peters, and Tripple (1987). However, the definitions of conservation and the empirical models differ.

Longstreth and Topliff define conservation as a process. The earlier study was based on the premise that conservation is an outcome and that behaviors (process) are only one precursor which determine the outcome: energy conservation (Ajzen & Fishbein, 1980). When the two studies are compared, it appears that the contradiction is semantic rather than conceptual. What Longstreth and Topliff have accomplished is to establish a standard of behavior and thus establish a link between the two conceptualizations.

A matter of concern with the Longstreth and Topliff approach is that the measure of conservation employed in the empirical model is change in fuel consumption. The conceptual model implies that conservation is calculated from one or more actions and by a series of internal external factors other than energy saving behaviors in a benefit:cost ratio. Therefore, there is a discrepancy between the conceptual model and the research design used to test that model. In terms of the conceptual model, the researchers established a test of one standard for conservation: lowered utility provided fuel consumption.

One factor which was not considered in this study, nor in earlier studies, is the concept of risk. Individuals differ in their perception of risk, in their ability to handle different types of risk, and in their management of risk. They also differ in their ability to deal with delayed gratification, which includes elements of risk. Longstreth and Topliff alluded to risk and delayed gratification when they considered deprivation and time horizon. Risk is also implied in a benefits/cost approach. When conservation is perceived as an outcome rather than as a process, risk avoidance may be an important factor to consider. The study of risk in relation to conservation should be a fruitful area for future research.

The confirmation that price is not the sole factor influencing energy consumption is important and has implications for further research. A discrepancy between price and perceived cost was assumed in this study and the researchers addressed the issue with a measure of financial burden. I would propose that this issue be examined in greater detail and hypothesize that perceived cost can be predicted by some combination of the following variables: the ratio of present price of the product/service to prices of complementary goods; the ratio of present price of the product/service to the price of the product/service in other markets (geographic and time variables implied); and the individual's perception of his/her position on a deprivation--well being continuum.

As evidenced by the economic situation in locations heavily dependent on extraction of energy related commodities, the political situation in the major oil exporting nations, and the confusing patterns of consumer energy consumption, the energy future is uncertain. Longstreth and Topliff are to be commended for furthering research on conservation.

A major problem when researchers use innovative approaches to assessing energy conservation is that they are limited by the variables included in existing data bases. When differences in climate, housing typologies, type, costs and relative efficiency of fuel used, etc. are considered, the advantage of using regional research as a base to build on becomes increasingly important. With a regional approach, inter and intra state comparisons can be made, and with coordinated efforts, regional comparisons can be made. This would allow for inclusion of uniqueness and similarities in the research design, and could facilitate the translation of research findings into applications which would enable families to achieve and maintain an acceptable level of living.

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WESTERN REGIONAL PROCEEDINGS: CONTENTS IN THE 1980s AND REFERENCES TO THE PAPERS

Carole J. Makela, Colorado State University
Suzanne M. Tucker, Colorado State University

Abstract

This paper describes a content analysis of 122 papers included in the six annual conference Proceedings of the Western Regional College Educators' of Home Management-Family Economics from 1980 through 1985 and in the Papers of the Western Region Home Management Family Economics Educators, Volume 1, 1986. Entire papers were selected as the units of analysis. The annual number of papers ranged from 12 to 24. Content analysis procedures similar to those done for the 1970s' papers (Tucker & Makela 1986) were used. Tabulation of the seven years of scholarly endeavor revealed a subject matter, rather than research or teaching emphasis in three-fourths of the papers. The number of papers appearing during the 1980s increased on an average annual basis from the 1970s. The change was primarily the result of an increase in the numbers of papers with family finance/economics content. From a review of selected home management-family economics publications, it was observed that few authors cited papers from the Western Regional Proceedings in the development of their papers. Possible reasons for the trends are explored further in this paper.

The primary goal of the authors was to document trends in the foci of articles presented at Western Regional Home Management-Family Economics Educators' (WRHMFEE) conferences. This goal was implemented through content analysis of the papers published in the annual Proceedings during the 1980s and to compare the findings to those of the papers in the 1970s (Tucker & Makela 1986). A secondary goal was to document the transfer of ideas presented at these conferences. This was done by reviewing selected publications in home management and family economics and related fields for references to the papers appearing in the WRHMFEE Proceedings.

During the late 1970s and early 1980s, there were changes in the Western Regional organization, in colleges and universities, and in the larger society that encouraged changes in content and form of WRHMFEE papers published during the 1980s.

The 1970s

The 1970s' Proceedings primarily included position papers on subject matter. The majority dealt with home management. The number of papers appearing in the Proceedings generally increased each year during the decade as more people learned about the conferences through the Western Regional newsletter, as more participants attained advanced degrees, and as universities emphasized publication for faculty advancement. The proportion of papers reporting research increased during the decade. The majority of research papers relied on large sample surveys. Data tapes from other studies were available during this decade, and a number of WRHMFEE authors made use of these tapes. Complete analysis of the 1970s' papers can be found in Tucker & Makela (1986).

The 1980s

The WRHMFEE altered procedures for submission and specified formats of papers during the early 1980s. In 1980 participants determined that peer review could increase the status of papers and provide opportunities for authors to improve the quality of their work (Business Meeting, Proceedings 1980). The first refereed papers were submitted in spring 1981 and appeared in that year's Proceedings. Only research and theory papers were to be submitted for review. Submission of such a paper required the author(s) to have the complete paper prepared six months in advance of the annual meeting. Efforts were also made to achieve a more consistent appearance in the Proceedings and in specific papers. Abstracts were required for all but invited papers beginning in 1982. A formal review (vs. referee) process was also developed beginning in 1982.

Methodology

The content analysis of the papers included in the 1980 through 1985 Western Regional' Proceedings and the 1986 Papers was completed similarly to that done for the 1970 through 1979 Proceedings (Tucker & Makela 1986). This consistent use of analysis procedures allowed the comparison of findings from the 1970s' Proceedings to that of the most recent seven years.

Using the 1980 through 1986 Proceedings, an entire paper was selected as the unit of analysis for this study. Although reliable coding can be problematic for such a large unit, each paper or article generally contained a single theme which was not always reflected in the title of the paper (Weber 1985). For other purposes, words, titles, sentences, or paragraphs were units that could be analyzed.

Discussant papers, introductions to or summaries of conferences, and recorders' summaries of discussion groups were excluded from analyses, as these repeated content of the papers or were included in the Proceedings because of the chosen conference format. All types of papers as described here are included in the Author and Title Index to Conference Proceedings, 1970-86, (Tucker & Makela 1987).

With exceptions noted in the above paragraph, the entire population of papers was examined. The papers were examined for content type, subject matter, fit into a management framework (Rice &

Tucker 1986), purpose, research methodology and basic discipline. Appendix I includes the details on the construction of the categories and the coding of the papers.

In addition, selected home management, family economics and home economics publications were reviewed. The reference lists of the papers in these publications were searched for citations of papers that have appeared in the Western Regional Proceedings and Papers. More complete details of this data collection are included in a later section of this paper.

Content Analysis Findings

The number of papers each year ranged from 12 in 1985 to 24 in 1982 with a mean of 17 papers, as indicated in Table 1. This is an increase from the 1970s which had a mean of 15 papers per year.

Seventeen Year Analysis

Of the total of 122 papers appearing between 1980 and 1986, almost three-fourths (89) emphasized subject matter, rather than instruction or research. The majority of papers during each year focused on subject matter. During the 17 years, 1970 to 1986, over two-thirds of the papers emphasized subject matter. Instruction was next most common and research papers (as a topic) were rare.

TABLE 1. Annual Frequency and Cumulative Totals of Subject Matter, Instruction, and Research Papers in the Proceedings, 1980-86, and Summaries, 1980-86, 1970-79, and 1970-86.

Year	All		Subject Matter		Instruction		Research	
	#	Total	#	Total	#	Total	#	Total
	(number of papers)							
1980	18	18	9	9	8	8	1	1
1981	19	37	15	24	4	12	0	1
1982	24	61	17	41	7	19	0	1
1983	18	79	15	56	3	22	0	1
1984	18	97	13	69	5	27	0	1
1985	12	109	10	79	2	29	0	1
1986	13	122	10	89	2	31	1	2
Seven Year Summary (1980-86)								
Totals		122		89		31		2
% of Total		100		73.0		25.4		1.6
Range	12-24		9-17		2-8		0-1	
Mean	17.4		12.7		4.4		0.3	
Ten Year Summary (1970-79)								
Totals		149		99		42		7
% of Total		100		66.4		28.2		4.7
Range	11-20		5-15		0-7		0-4	
Mean	14.9		9.9		4.2		0.7	
Seventeen Year Summary (1970-86)								
Totals		271		188		73		9
% of Total		100		69.4		26.9		3.3
Range	11-24		5-17		0-8		0-4	
Mean	15.9		11.1		4.3		0.5	

The number of papers emphasizing teaching strategies or philosophies ranged from 2 each in 1985 and 1986 to 8 in 1980. The average for the latest seven years, and for the total 17 years, was approximately 4.3 papers per year featuring instruction or teaching, rather than subject matter or research. The number of papers emphasizing research philosophies or processes dwindled to a total of 2 during the 1980s. The mean of .3 during the 1980s is even less than that of .7 during the 1970s.

Comparison of the 1970s to the 1980s

Of the subject matter papers in the Proceedings during the 1980s, there was an average of 6.7 papers a year dealing with resource or home management (Table 2). This trend was similar to the average of 7.1 papers per year during the 1970s. During the 1980s there was a marked increase in the number of papers emphasizing family finance and family economics, 8.1 per year. The number of such papers equaled or exceeded those in resource management each year except 1980. This contrasts with the average of 2.5 family finance or economics papers during the 1970s.

TABLE 2. Annual Frequency and Cumulative Totals of the Subject Matter Areas of the Papers in the Proceedings, 1980-86.

Year	Resource Management/ Home Management		Family Finance/ Family Economics		Consumer Topics	
	#	Total	#	Total	#	Total
	(frequency of subject matter)					
1980	9	9	5	5	4	4
1981	8	17	10	15	2	6
1982	10	27	11	26	2	8
1983	5	32	12	38	1	9
1984	8	40	8	46	2	11
1985	2	42	6	52	4	15
1986	5	47	5	57	1	16
Seven Year Summary (1980-86)						
Totals (n = 109[1])		47		57		16
% of Total		39.2		47.5		13.3
Range	2-10		5-12		1-4	
Mean	6.7		8.1		2.3	
Ten Year Summary (1970-79)						
Totals (n = 120[1])		71		25		24
% of Total		59.2		20.8		19.2
Range	0-14		0-5		0-11	
Mean	7.1		2.5		2.4	
Seventeen Year Summary (1970-86)						
Totals (n = 229[1])		118		82		40
Range	0-14		0-12		0-11	
Mean	6.9		4.8		2.4	

[1]A paper could be in more than one category or excluded if not of these 3 subject matter areas.

Consumer topics were present during each of the 1980s conferences. They were more evenly distributed during the 1980s than the 1970s, but during the 17 years this subject matter area was least frequent of the three categories with an annual average of 2.4 papers.

One hundred twenty-six of the papers were classified within a management framework (Table 3). The actual number of classifications was 179 as a portion of the papers included more than one of the management framework components. This is an indication that the papers were more complex than had been the case in the 1970s. Inputs were included in nearly one-half of the papers.

Throughputs and outputs were equally represented, with 26 percent each. The frequency distribution of inclusion of the framework components was more balanced than in the decade of the 1970s. In the earlier analysis, nearly two-thirds of the papers included inputs, while throughputs characterized one-fifth of the papers and outputs, one-eighth.

In the period being analyzed, the majority (54 percent) of the papers reported research studies. The next most frequent was position papers which accounted for 21 percent of the productivity during this period. Four other classifications--teaching methodologies, program descriptions/evaluations, literature reviews and other--accounted for no more than 10 percent each (Table 4).

TABLE 3. Annual Frequency and Cumulative Totals of the Framework Components of the Papers in the Proceedings, 1980-86.

Year	Inputs		Throughputs		Outputs	
	#	Total	#	Total	#	Total
	(Frequency of inclusion of component)					
1980	11	11	7	7	6	6
1981	14	25	9	16	9	15
1982	18	43	12	28	8	23
1983	12	55	5	33	5	28
1984	13	68	5	38	7	35
1985	8	76	4	42	3	38
1986	11	87	4	46	8	46
Seven Year Summary (1980-86)						
Totals (n = 179[1])		87		46		46
% of Total		48.6		25.7		25.7
Range	8-18		4-12		3-9	
Mean	12.4		6.6		6.6	
Ten Year Summary (1970-79)						
Totals (n = 103[1])		69		21		13
% of Total		67.0		20.4		12.6
Range	2-12		0-6		0-3	
Mean	6.9		2.1		1.3	
Seventeen Year Summary (1970-86)						
Totals (n = 282[1])		156		67		59
% of Total		55.3		23.8		20.9
Range	2-18		0-12		0-9	
Mean	9.2		3.9		3.5	

[1]A paper could be in more than one category.

This distribution differs from the previous ten years. In the 1970s, the most frequent purpose was position papers (40 percent) with research papers and program descriptions/evaluations each with 21 percent of the total. The portion of research papers more than doubled while that of position papers was nearly halved and that of program description lowered by two-thirds.

In the 84 papers reporting research (including research papers, program evaluation and teaching), nearly 60 percent used a one-time, large sample survey (n > 50), (Table 5). The largest number of these was in 1982 when twelve papers were based on this data collection methodology. Next most frequent was case studies (16 percent) and longitudinal studies (7 percent).

Large samples accounted for a greater portion of the studies in the previous decade when three-quarters of the research studies were large sample. The portions of case and longitudinal studies increased in the most recent seven years.

The basic discipline most frequently identified in the papers was home economics (Table 6). It was identified as 44 percent of the discipline bases used. The next most frequent were social sciences (19 percent), public policy (12 percent) and economics (12 percent). In the earlier period, 1970 to 1979, the basic disciplines used most often were similar—home economics (48 percent), social sciences (16 percent) and public policy (13 percent). Education was more prevalent as a basic discipline in the 1970s. It was replaced as fourth most frequent in the 1980s by economics.

Referee and Review Outcomes

The annual number of refereed papers ranged from three to eight per year. The average was 4.5. Slightly more than one-fifth of the papers in the 1980s were refereed. From Table 7 it can be observed that in 1981, 1983 and in 1984 fewer than one-half of the papers submitted were accepted in the referee process. It is possible that some of the unsuccessful refereed papers were then submitted as reviewed papers.

The review process was formalized in 1982, although previously it had been handled informally using abstracts by conference planners. The number of reviewed papers presented ranged from a low of 5 in 1985 to 15 in 1982. The numbers of papers submitted were not reported until 1984. The conference in 1985 was about one day shorter than the others, which might have contributed to the high rejection rate for reviewed papers.

TABLE 4. Annual Frequency and Cumulative Totals--Purposes of the Papers in the Proceedings, 1980-86.

Year	Position Paper		Research		Program Description/ Evaluation		Teaching Techniques		Review of Literature		Other	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
1980	5	5	6	6	0	0	4	4	3	3	2	2
1981	4	9	11	17	1	1	1	5	1	4	1	3
1982	4	13	14	31	3	4	3	8	2	6	1	4
1983	10	23	8	39	0	4	0	8	0	6	0	4
1984	1	24	10	49	1	5	2	10	0	6	1	5
1985	2	26	8	57	1	6	1	11	0	6	1	6
1986	1	27	11	68	0	6	1	12	1	7	0	6
Seven Year Summary (1980-86)												
Totals (n = 126[1])		27		68		6		12		7		6
Percent of Total		21.4		55.0		4.8		9.5		5.6		4.8
Range	1-10		6-14		0-3		0-4		0-3		0-2	
Mean	3.9		9.7		0.9		1.7		1.0		0.9	
Ten Year Summary (1970-79)												
Totals (n = 152[1])		60		32		32		16		7		5
Percent of Total		39.5		21.1		21.1		20.5		4.6		3.3
Range	4-13		0-5		0-6		1-5		0-2		0-2	
Mean	6.0		3.2		3.2		1.6		0.7		0.5	
Seventeen Year Summary (1970-86)												
Totals (n = 278[1])		87		100		38		28		14		11
Percent of Total		31.3		36.0		13.7		10.1		5.0		4.0
Range	1-13		0-14		0-6		0-5		0-3		0-2	
Mean	5.1		5.9		2.2		1.6		0.8		0.6	

[1]A paper could be in more than one category.

TABLE 5. Annual Frequency and Cumulative Totals of the Research Methodologies Used in the Papers in the Proceedings, 1980-86.

Year	Large Sample		Case Studies		Small Sample		Content Analysis		Participant Observation		Longitudinal	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
1980	4	4	5	5	0	0	1	1	1	1	0	0
1981	9	13	0	5	2	2	0	1	0	1	1	1
1982[1]	12	25	3	8	1	3	0	1	0	1	0	1
1983[1]	5	30	2	10	0	3	1	2	0	1	1	2
1984	6	36	3	13	1	4	0	2	0	1	3	5
1985	7	43	0	13	0	4	0	2	0	1	1	6
1986[2]	7	50	0	13	1	5	2	4	0	1	0	6
Seven Year Summary (1980-86)												
Totals (n = 84[1])		50		13		5		4		1		6
Percent of Total		60.0		15.5		6.0		4.8		1.2		7.1
Range	4-12		0-5		0-2		0-2		0-1		0-3	
Mean	7.1		1.9		0.7		0.6		0.1		0.9	
Ten Year Summary (1970-79)												
Totals (n = 33)		25		3		2		1		1		1
Percent of Total		75.6		9.9		6.1		3.0		3.0		3.0
Range	0-7		0-1		0-1		0-1		0-1		0-1	
Mean	2.5		0.3		0.2		0.1		0.1		0.1	
Seventeen Year Summary (1970-86)												
Totals (n = 117)		75		16		7		5		2		7
Percent of Total		64.1		13.7		6.0		4.3		1.7		6.0
Range	0-12		0-5		0-2		0-2		0-1		0-3	
Mean	4.4		0.9		0.4		0.3		0.1		0.4	

[1] These years each included one paper using a methodology not classified here.
[2] This year included three papers using a methodology not classified here.

TABLE 6. Annual Frequency and Cumulative Totals of the Basic Subject Matter[1] in Papers in the Proceedings, 1980-86.

Year	Home Economics		Social Sciences		Public Policy		Education		Economics		Computer/ Technology		Business	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
	(frequency of inclusion)													
1980	11	11	5	5	3	3	4	4	1	1	0	0	0	0
1981	12	23	8	13	3	6	3	7	7	8	2	2	1	1
1982	19	42	6	19	5	11	0	7	3	11	1	3	4	5
1983	15	57	4	23	7	18	3	10	5	16	0	3	2	7
1984	14	71	5	28	3	21	1	11	4	20	0	3	1	8
1985	10	81	5	33	3	24	2	13	3	23	0	3	1	9
1986	11	92	6	39	1	25	2	15	3	26	0	3	1	10
Seven Year Summary (1980-86)														
Totals (n = 210)		92		39		25		15		26		3		10
% of Total		43.8		18.6		11.9		7.1		12.4		1.4		4.8
Range	10-19		4-8		3-7		0-4		1-7		0-3		0-4	
Mean	13.1		5.6		3.6		2.1		3.7		0.4		1.4	
Ten Year Summary (1970-79)														
Totals (n = 205)		99		32		26		21		11		7		4
% of Total		48.3		15.6		12.7		10.2		5.4		3.4		2.0
Range	6-17		0-8		0-7		0-4		0-3		0-2		0-2	
Mean	9.9		3.2		2.6		2.1		1.1		0.7		0.4	
Seventeen Year Summary (1970-86)														
Totals (n = 415)		191		71		51		36		37		10		14
% of Total		46.0		17.1		12.3		8.7		8.9		2.4		3.4
Range	6-17		0-8		0-7		0-4		0-7		0-3		0-4	
Mean	11.2		4.2		3.0		2.2		2.1		0.6		0.8	

[1] Health/Rehabilitation was a subject matter found in the 1970s but in in this 7 year analysis.

In each of the seven years, conference planners elected to invite specific people to present papers. These authors were generally from outside the fields of home management-family economics or from outside the region. The number of invited papers ranged from one to four a year. Invited papers were one-third of those appearing in 1985, but only four percent of those in 1982. When the number of total papers presented was smaller conference planners had more influence in the overall emphasis in a proceedings through their selection of invited papers.

Citation of Western Regional Proceedings' Papers

Analyses of reference lists have been recommended to document the utility of ideas within a publication (Volker & Deacon 1982). Because the Proceedings are available for sale and have been included

in the Social Sciences Citation Index since 1981 (Business Meeting, Proceedings 1981), there is potential for others to use the information.

TABLE 7. Annual Frequency of Papers--Refereed and Reviewed--and Invited Presentations, 1980-86.

Year	Refereed		Reviewed[1]		Invited	Total
	Sub-mitted	Pre-sented	Sub-mitted	Pre-sented		
1980	—	—	—	14[2]	4	18
1981	7[a]	3	—	12[2]	4	19
1982[b]	11	8		15	1	24
1983[c]	11	5		11	2	18
1984[d]	15	5	15	12	1	18
1985[e]	5	3	18	5	4	12
1986	5	3		9	4	16
Total		27		78	20	122
% of Total		19.7		62.4	16.0	

[1]Student awardee paper included as reviewed except in 1986 (invited).
[2]Review process took on current form in 1982.

Data Sources:
[a]Report on Refereed Proceedings, 1981 Proceedings, 258.
[b]1982 Business Meeting, 1982 Proceedings, 119.
[c]Vol. 12, Issue 4 (Winter 1983) WR Newsletter, 4.
[d]1984 Business Meeting, 1985 Proceedings, 83.
[e]1985 Business Meeting, 1985 Proceedings, 85.

Fetterman and Lefebvre (1984) used analysis of citations to identify uses of home economics research and to identify the diffusion of information. Because the number of projects and funding for research in home management and family economics has been less than that for most areas of home economics, the sharing of research results has been identified as very critical to the development of the field (Tripple & Keiser 1982).

Recognized home management-family economics publications (Appendix II) were reviewed to ascertain the extent to which authors made reference to papers published in the Western Regional Proceedings, 1970 through 1985. Thirty-five citations were found. These were in the publications indicated in Table 8. Most citations (46 percent) were in the Rice and Tucker text, Family Life Management (1986). The next most likely place citations were found were in later WRHMFEE Proceedings.

TABLE 8. Publications in Which WRHMFEE Proceedings' Papers Were Cited.

Publication	Citations (number)
Rice & Tucker (1986)	16
WR Proceedings (1970-86)	9
Gross, Crandall and Knoll (1980)	4
AHEA Family Economics Home Management Proceedings	3
Home Economics Research Journal	2
Other	1
Total	35

The 35 citations included 23 or 8.5 percent of the papers (n = 271). Seven papers were cited more than once in the other publications. Six of the seven were cited in two or more different publications. For example, a paper may have been cited in Rice and Tucker and in a subsequent Western Regional Proceedings.

Citations of papers were found in publications as early as two years after appearing in the WRHMFEE Proceedings to as long as 15 years after first appearing in the proceedings. Table 9 indicates the annual frequency of papers cited. The 1978 Proceedings, Changing Families in Changing Environments, had six of its 16 papers cited 11 times. This was the most often cited volume.

TABLE 9. Annual Frequency of Papers Cited in 1970-1986 WRHMFEE Proceedings.

Proceedings Year	Papers Cited (number)	Proceedings Year	Papers Cited (number)
1970	0	1980	2
1971	2	1981	0
1972	0	1982	2
1973	0	1983	3
1974	0	1984	1
1975	1	1985	0
1976	3	1986	-
1977	0		
1978	6		
1979	3		

Considering the aforementioned two year time lag, it can be noted that all but two of the papers cited were in the recent ten year time period (1975 to 1984). It is too soon to expect citations of the 1985 and 1986 Proceedings.

In addition to the above citations, the same reviewed publications (Appendix II) included the following citations of WRHMFEE materials:
--general citation (no reference to specific papers) of Proceedings from 1978 to 1983 (Rice & Tucker 1986); of 1971 (Gross, Crandall & Knoll 1980) and 1971 and 1978 (AHEA 1979) Proceedings.
--citation of papers appearing in pre-1970 Proceedings: 1961 (Proceedings, 1982), 1966 (AHEA, Definitive Themes) and 1968 (Gross, Crandall & Knoll 1980) Proceedings.
--citation of a thesis abstract from an issue of the 1983 WRHMFEE newsletter (Home Economics Research Journal 1984).

Discussion

In 1986, Tucker and Makela stated:

> An analysis of the 1980s will likely reflect additional changes. The process of reviewing papers before their inclusion should relate to some of these changes. Alterations in society and in higher education will bring about others. The importance of conference planners in inviting speakers and establishing conference themes is likely to continue to affect the direction of the organization's output.

The findings of the 1980s' analysis bears out the above noted 'additional changes.' The most distinct trends from the 1970s to the 1980s include: 1) greater number of papers (annual average), 2) increase in family finance/economic papers, 3) more balanced inclusion of the management components, 4) growth in number and portion of papers reporting research, and 5) declines in position papers and those describing and evaluating programs.

The increase in number of papers was considered positive because more perspectives were provided. Further, in those years when reactor papers were included even more ideas and viewpoints were shared. With adequate time for papers, reactors and discussion, the increased number of papers expanded the conference content.

Quality of papers is a more elusive factor as we well know. The opportunity to revise papers on the basis of reviewers' comments and suggestions as well as the authors' time to ponder were likely to have improved the quality and relevance of the content of papers. If quality is a concern, should we strive for additional referee and review criteria that assure improved output? Examples of criteria could be the inclusion of data collection methodology, sample size, appropriate statistical analysis, references, etc. These criteria and their application may be of greater meaning than relying on judging quality by a rejection rate. It may not be suitable to expect a bell curve as to paper acceptance. The challenge is to have the curve skewed to acceptance of most all quality papers.

Although a fairly consistent number of home management papers have been presented, the increase in family finance/economics papers may reflect the 'researchability' of the topic, interests of the faculty, change in emphasis in our programs and/or funding available for research. Will this trend reverse itself, stabilize or continue in the future? What should be the mix?

The inclusion of the throughput and output components of the management framework is an indication that we are beyond studying the relationship of resources and socioeconomic characteristics. Berger (1984) termed this the holistic approach dating from the early 1970s. Consistent with this holistic approach behaviors and outcomes are now being explored. Either a more directed examination of the variables studied using content analysis or an appropriate review of literature would be useful to indicate the knowledge base or 'state-of-the-art.' A review of this nature would be helpful to answer the question 'what next?' to advance knowledge.

Establishing where we are directly relates to the changing mix of types of papers. Increased research reporting indicates a commitment to the development of ideas by conference participants. More varied research methods and analysis also indicate more knowledge of research by presenters. As the portion of research reporting papers increases, it could be useful to look at what has been done to assess the status of our knowledge base.

We must not be tr pped into equating productivity solely with reporting research studies. Other types of papers, be they position papers, reviews of the literature or program descriptions, are worthwhile and necessary to advance our fields. These allow us to 'invent a better wheel' rather than 'reinventing the wheel.' Though it is positive to see the research productivity that has been accomplished, we must remember that scholarly endeavor is more than that. Those persons most readily identified in the home management-family economics fields were and are integrators of knowledge and challengers of our thinking. Will some of our group take on similar roles now and in the future?

It appears that there has been limited building upon the subject matter base that has appeared in WRHMFEE publications. With the educational emphasis in the title of the organization, it seemed logical to observe that papers were referenced in two home management textbooks. It is possible that the proceedings provide a specialized outlet. However, authors of papers during the 17 years referenced only nine previous WRHMFEE papers. If the authors who have easiest access to the Proceedings were not stimulated to expand on, test, or challenge previous papers, it is less likely that others would build upon or apply these ideas or information to their written work.

Reports of regional research projects appearing in the WRHMFEE Proceedings, specifically those dealing with energy, quality of life, and time, were likely to have been cited in publications other than those in Appendix II. This analysis was limited to journals and texts most often identified with home management and family economics. In summary documents of regional projects, it is possible that some WRHMFEE papers could be identified as influential in the sequential development of that knowledge. However, that task was beyond the scope of this research, as was that of searching theses and dissertations for references to the Proceedings. Perhaps, these sources could be examined in the future.

Hopefully, the author and title index that is now available will assist authors to locate relevant references and more fully examine the concepts shared at the conferences. If authors of the region commit themselves and their students to examine the 17 (and earlier) Proceedings for relevant papers, it is possible that there can be better linkage of knowledge as well as clarification of information that is available.

In addition to research quality, productivity is often under scrutiny. It is interesting to note that the first Western Regional Proceedings article with multiple authors appeared in 1977. There have been a number of papers with joint authorship since then. It has been suggested that busy professionals may increase their productivity through membership in a team (Horn & Nickols 1982). Interdisciplinary and regional research efforts are two ways to help the field and its professionals grow. This latter suggestion seems to be most practical for 'new' professionals or for those who have limited contact with graduate students. The increase in research reporting papers in the 17 years examined here may involve

one or more of the suggested productivity enhancers.

Citation of papers that were in the Proceedings is not the only criterion of usage. Use as text or readings for courses taught in the various colleges and universities is another valid form of 'consumption' of the proceedings. Likewise, students' use of these papers as references in the development of course assignments is another use. These uses could be explored in another study to determine the breadth of usage of the WRHMFEE Proceedings.

Recommendations

Potential authors are encouraged to consider their audience and the guidelines in the development of papers for WRHMFEE Proceedings. With the number of professional organizations and journals, authors and reviewers have to ask themselves if the organization is the most appropriate audience to receive and use the ideas that have been developed. Content from related fields can help to expand participants' awareness, but the relationship to home management-family economics must be clarified if the paper is to survive either review process and build the knowledge base of the fields. The basic question may be whether WRHMFEE is to foster subject matter development and/or the publication record of individuals.

As recently as 1986, papers with no references appeared in the Proceedings. Careful selection of references from within the field can help authors to integrate their ideas with previous work and help readers to document the sequential development of concepts. The intent, here, is not to force people to cite research to 'advertise' WRHMFEE Proceedings or other documents, but to encourage the orderly development of knowledge within the field. Authors who do not document the sources for their ideas or do not consult the literature will not produce the same quality of contributions as those who use and give credit to others' work.

The organization can be proud of the progress that has been made over time. Yet it may be well to ask in what direction should we proceed? What is the balance between information sharing, professional development and publication opportunity that should be achieved? Is the chosen direction adequately building the knowledge bases of the fields? The questions may not be readily answered. But can we allow the questions to be answered by chance rather than choice?

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Appendix I

Methodology (Tucker & Makela 1986, 50-51)

Construction of Categories

Categories were constructed to describe the content, fit into a model, purpose, and basic discipline on which the paper was based. The researchers assumed that the classifications within the categories would be unique, but that a paper could emphasize more than one category.

Contents. Content was represented in three primary categories: teaching, research, subject matter. Teaching (pedagogy) included papers that focused on descriptions, philosophies, or qualities of disseminating knowledge in a formal or informal "teaching" environment. These papers could include a subject matter emphasis or be free of subject matter.

Research is a category of contents that focused on descriptions, philosophies, or qualities of developing knowledge or the role of the investigator. Papers in this category would typically be free of subject matter and not report on specific research projects.

Subject Matter. Subject matter is a category of contents that focused specifically on knowledge within the fields of home management and family economics. It was further classified into one of three areas: home or resource management, family finance or economics, and consumer. Indexes of textbooks and concept classifications in these three recognized fields were used to develop lists of specific terms or concepts that represented the major categories.

Fit into Model. A management framework (Rice & Tucker 1986) was used to classify the treatment of topics or variables in the paper. Components of the framework were grouped into three major categories--inputs, outputs, and throughputs--with families or households as the primary emphases of the framework. Presenters need not have used specific systems terminology to have the paper assigned to a category. A "does not apply" category was used for papers that were not built upon the management framework or were so general that classification was precluded.

Purpose of the Paper. The major intent of each of the papers was described as the purpose of the paper. The six initial classifications included reviews of literature, descriptions of a teaching technique, position papers presenting or advocating a certain perception or behavior, program or project evaluations, research, and an "other" category. Because of the number of papers describing programs or projects, a seventh category was added for that purpose. Reports of research--including program and project evaluations--were further classified based on methodologies used in data collection. Papers using secondary data were categorized according to the original data collection. The seven original categories ranged from one time, small sample surveys to experimental designs.

Basic Discipline. Basic disciplines are those upon which the position, framework, or perspective of the paper was developed. Multidisciplinary papers were categorized in more than one discipline or in integrated categories, such as social sciences or public policy. The content and the sources cited in the paper were used to identify these basic disciplines.

Coding of Papers. Coding sheets (see Tucker & Makela, 1986) were developed to represent the above categories. Each paper was read and coded separately by the two investigators. Inter-coder reliability exceeded 95 percent--indicating agreement about the meaning of the previously described categories. Differences of opinion were resolved through reexamination of the paper in question and discussion of the bases for assignment to categories. Annual summary sheets were developed for the categories and a limited number of cross tabulations were developed.

Appendix II

Home Management Family Economics Publications Reviewed for References to WRHMFEE Proceedings' Papers.

American Home Economics Association Family Economics-Home Management Conference Proceedings.

1973: Actualizing Concepts in Home Management, Washington, DC, 1974. (Conference held in Atlantic City, NJ).

1979: The Household as Producer--A Look Beyond the Market, Washington, DC, 1980. (Conference held in St. Charles, MO).

1981: Dynamic Planning for Uncertain Times: Living in an Era of Economic Uncertainty, Washington, DC, 1982. (Conference held at Stockton State College, NJ).

1983: Economic Decisions of Families: Security for the Elderly and Labor Force Participation of Women, Washington, DC, 1984. (Conference held in Madison, WI).

1985: Think Globally Acting Locally, The Balancing Act, Washington, DC, 1985. (Conference held in Philadelphia, PA).

1987: The Destiny of Families: How Their Futures Are Chosen, papers distributed at conference. (Conference held in Indianapolis, IN).

Home Economics Research Journal. 1980 through March 1987, Vol. 9, No. 1 through Vol. 15, No. 3 (27 issues).

Home Management texts.

Deacon, R. E. & Firebaugh, F. M. Family Resource Management Principles and Applications. Boston: Allyn and Bacon, Inc., 1981.

Gross, I. H., Crandall, E. W. & Knoll, M. M. Management for Modern Families, 3rd ed., New York: Appleton-Century-Crofts, 1973.

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Swanson, B. B. Introduction to Home Management, New York: Macmillan Publishing Co., Inc., 1981.

Western Regional Home Management Family Economics Educators Proceedings (1970 through 1985), (16 volumes).

Papers of the Western Region Home Management Family Economics Educators, Volume 1, 1986.

Other related publications.

American Home Economics Association, Definitive Themes in Home Economics and Their Impact on Families, 1909-1984. AHEA, 1984.

Deacon, R. E. & Huffman, W. E. (eds.), Human Resources Research, 1887-1987 Proceedings. Ames, IA: Iowa State University, 1986.

PROGRESS AND ISSUES IN WESTERN REGION PROCEEDINGS

Georgianne Baker, Arizona State University

Abstract

This paper discusses signs of progress and issues in the paper "Western Regional Proceedings: Content in the 1980s and References to the Papers" (Makela and Tucker, 1987). Their suggestions and recommendations are analyzed, and areas of critical need are identified from the perspective of the author.

Signs of Progress

The Makela and Tucker analysis is basically an optimistic report, as supported by the following highlighted findings:

1. Well-defined and functioning referee and review processes for annual meeting papers are in place. My calculations using their 1981 - 1986 data indicate a 20.4% acceptance rate for refereed papers and, using data for 1984 - 1986 (the only years for which the authors report available comparable information), an acceptance rate of 59% for reviewed papers. These figures indicate that clear distinctions are being made among paper submissions in the referee/review processes by WRHMFEE members.

2. There is a healthy increase in the number of papers being submitted since 1980; the increase is due basically to change in rate of submission of family economics content papers (from 2.5 papers on average per year in the 1970s to 8.1 papers on average per year in the 1980s). Family resource management submissions have remained relatively stable over the whole period.

3. Papers are more complex: content analysis reveals use of systems models; a dramatic increase in emphasis on the planning and implementing processes as managerial throughputs; focus on goals and satisfaction attainment as managerial outputs; and a more holistic approach to management. Emphasis on inputs decreased from 67% in the 1970s to about 49% in the 1980s, while emphasis on throughputs and outputs increased (from 20% to about 26%, and from about 13% to about 26%). Papers are also more balanced in that many papers deal with two or three of the managerial elements instead of only one. My recalculation of their data indicates that over 40% of the papers dealt with two or more elements.

4. The quantity of papers reporting research has more than doubled in the 1980s (in the 1970s 21% of the papers reported research; in the 1980s, 54% of the papers). Evidence indicates more varied research designs and (since 1977) more joint authors.

Issues

Even though there is definite progress since the end of the 1970s, there is still room for improvement in this and the upcoming decade. One question which requires three more years of data to answer is whether or not the findings reported by Makela and Tucker will hold true or change when the decades of the 1970s and 1980s can be compared. However, there are several issues which this partial comparison raises which we can address:

1. How can authors be more successful in surviving the Western Region referee or review processes? Important considerations include: more attention to the relationship between papers and family economics and resource management; clearer statements about the contribution papers make to a body of knowledge; and perhaps more carefully selected references pertinent to family economics and resource management.

2. Why are so few of the papers in the Western Region Conference Proceedings cited by other authors in recognized scholarly journals which publish family economics and resource management articles? Citiation is one indicator of the transfer of ideas, contribution to knowledge, and theory building in a field of study, as Makela and Turner point out. It is possible that sources of citations investigated by the authors were too limited to be used to judge adequately whether or not Western Region scholarship is influencing other researchers. If the latter is of concern, how can we get a better list of publication sources which could be inventoried to determine use of work reported in our proceedings by others?

3. Is it acceptable that subject matter dominates Western Region conferences, accounting for three-fourths of the papers? This dominance is in contrast to papers which report basically teaching and research strategies or philosophies.

4. Is it acceptable for development of the field that there continues to be major emphasis on analysis of large data sets? Reports of research based on large data sets are about 60% of the total in the 1980s so far (although this has decreased). Coming up slowly are case studies, content analyses, and longitudinal research designs (together these account for about 27% of the reports). Participant observation went down and small sample studies stayed the Western Region to critique and highlight its contributions to the field, under the assumption that we agree that it is important for us to do so.

Recommendations and Suggestions

Makela and Turner have answered their questions: "What are our choices and in what directions should we proceed?", to a certain extent. Here I will review some of their ideas and add my thoughts.

To build the family resource management knowledge base it is important to use all of the productivity enhancers mentioned in the paper (e.g., interdisciplinary research teams, multiple authors). In this pursuit, it is important to foster both the development of knowledge and publication, under the assumption that the second is a critical avenue to the first.

Authors need to more specifically clarify the relationship of their papers to the body of knowledge in family economics and resource management. This step would raise the consciousness of researchers about this very important responsibility which we all share, and thus it would not be left to others to attempt to do once in each decade. At the least, it would greatly assist others who review the literature in support of their own work, and might result in an improved citation record for papers in the proceedings.

The referee and review processes should continue to work to improve the quality of papers accepted for presentation and publication in the proceedings. When necessary, the process should include nonWestern Region persons to referee/review papers. One situation in which this may be called for is when committee members are not specialized enough to make adequate judgments about the quality of a highly technical paper. Members of the region are accustomed to being called upon to perform this service for groups in other areas of the country.

It seems to me that several kinds of papers should be encouraged by conference planners. One is the type of paper which raises awareness or introduces new issues in order to focus members' attention either on building future knowledge or responding to critical research and application needs. This point has recently become very evident for me in my role as Women in International Development Officer at my university. I perceive that there is an opportunity to be more sensitive to problems of practitioners and policy makers, who would find position papers which clarify critical issues or the available research base extremely useful in their decision making. Such papers might find important, if unusual, citation outlets; for example, the Congressional Record.

It may be very useful to survey the current Western Region membership to identify their major areas of work and interest in research and theory development, and in practice, teaching, and issues applications. Such a survey, which might be carried out through the Newsletter, could provide guidance for conference themes in upcoming years. The survey would surely provide information useful in deciding what the most appropriate mix of papers might be to increase or maintain attendance at conferences. It is quite possible that changes in kinds of attendees as well as in their interests and academic preparation may have occurred since the 1970s. For comparison purposes, there may be some evaluations of earlier conferences which included information on the background of participants; and the proceedings themselves could be used as approximate indicators of participant interests and endeavors in research, teaching, and practice.

The group might consider commissioning papers to be written by members which examine past proceedings for specific contributions to the family resource management body of knowledge, and discuss gaps and needed next steps. One such paper could be commissioned and delivered at each of the upcoming conferences for the next several years.

The last recommendations revolve around several issues of research. One relates to the finding that the majority of studies reported in proceedings continue to be based on available large data sets. Alternative methodologies should be encouraged when appropriate for the research question. When large date sets are used, researchers might be encouraged to explore in their papers the need for smaller scale studies to test specific hypotheses or propositions which will lead to an increased knowledge base. Such a stipulation could b built into requirements for papers being submitted for conference presentation. Referee/review committees might consider these ideas as suggestions to make to authors who submit the papers.

The other issue is that of continued emphasis on one-respondent surveys for family economics or family resource management studies. There needs to be more encouragement for using the whole family (or family dyad) as the unit of study for research, as well as in teaching and other application programs. Only in this way can our field of study continue to justify its use of an ecological and social systems perspective.

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RESPONSE TO "WESTERN REGIONAL PROCEEDINGS: CONTENTS IN THE 1980S AND REFERENCES TO THE PAPERS"

Doris M. Beard, California State University, Sacramento[1]

Makela and Tucker have undertaken a rather tedious task in order to provide us with information about the direction in which this organization is headed. Since the main function of the WRHMFE Educators is the annual conference, its proceedings and business meeting minutes largely tell its story.

Initially this group was small (about 30 attendees) and quite homogeneous, consisting of four year college and university resident faculty from the region who were primarily teachers with a few members who had ongoing research appointments. During the late sixties and seventies, the group expanded in size and scope including community college faculty and extension faculty as well as persons from outside the region. The annual meetings afforded opportunities for exchanges of ideas that could immediately be of professional use to participants and an almost nurturing atmosphere for new members of the group.

As Makela and Tucker point out, the changes that have occurred are quite marked. Although there has always been an opportunity for participants to "volunteer" to present their ideas and research, in the early years attendance was not so much dependant on whether or not one was on the program. Presenters were sought out for sharing unique programs, ideas about developments in the field, and research that they were engaged in.

The conferences of the seventies and eighties undoubtedly have contributed more to the knowledge base in the field than did the earlier conferences. However, I wonder if the conference proceedings are the only places where most of that research has been published. Perhaps the rather sparse number of citations from our proceedings means that the research that really contributed to building a subject matter base has also been reported elsewhere in sources that are more readily available and/or are perceived as being more scholarly than proceedings.

I was glad the authors of the paper emphasized that citation of a paper is not the only evidence of its usefulness or its use. We might need to develop some criteria for papers that would assure their usefulness to participants and others reading our proceedings who are not likely to be writing for publication as well as for those who will use the proceedings as a source for developing knowledge in the area. In recent years, some participants have complained that the conferences are becoming less useful for them. Are we eliminating some participation by the direction in which programs in recent years have gone? Is the WRHMFEE conference becoming a clone of other conferences in which the primary purpose seems to be to give researchers who need to demonstrate their productivity to their own institutions a forum for doing so?

Our field has been slow in the development of knowledge through research, and I am sure that we are all pleased to see that much more research is being done today than was being done just a few years ago. We need to find ways to foster this trend, and at the same time, to make sure that the knowledge that is being developed is being presented in a form that is useful to the variety of HMFE professionals who make up our group.

Makela and Tucker set themselves quite a task for analyzing the papers. They state that all papers except those of discussants, introductions, and summaries were included in the analysis, but the analysis of content makes me wonder whether all invited papers were included.

I found their content analysis of the papers somewhat confusing, perhaps because it was so general. For instance, I did not know what comments like papers "included" the concept of inputs meant. I know what "inputs" are, but I could not tell in what ways the papers "included" inputs. Does this mean that research was done on what a family's goals or resources were? The paper states that 126 papers were classified as to management concepts included, but only 120 papers were classified as to subject matter. How could this be? Only 47 were classified as management papers. I also did not understand how the authors categorized the papers as to "basic discipline," although the appendix helped me somewhat to visualize how this might have been done.

In regard to the analysis of citations from the proceedings, I became confused about how the term "citation" was used. Page 15 says "Thirty-five citations were found." I wonder if that means 35 papers were cited, because on page 16 the comment is made that "The 1978 Proceedings... had six of its 16 papers cited 11 times," which would make 66 citations.

The authors of this paper make recommendations that should be taken very seriously by this group in developing guidelines for conference papers. If it is not already being done, perhaps sending notices of availability of proceedings to university libraries would help to insure that scholars finding references to papers in the proceedings in the Social Science Index would have easy access to those papers.

[1] Professor of Home Economics

THE PERSONAL FINANCIAL EFFECTS OF SERIOUS WORK INJURY

Margaret P. Ray[1] and Sally E. Horton[2], Washington State University

Abstract

This study of 2,540 injured Washington state workers with Workers' Compensation claims closed in 1983-84 examines relationships among employment status, seriousness of injury, personal income before and after injury, and use of a variety of economic resources including welfare, unemployment compensation, employment of another family member and savings or borrowing. The costs of serious work-related injury appear to be paid out of workers' savings, borrowing and dependence on the labor of family members.

Introduction

Although the exact number of work-related illnesses, accidents and deaths in the United States is unclear, one fact is uncontestable--the numbers are substantial. In 1984, according to the Bureau of Labor Statistics, an estimated 5.4 million Americans suffered job-related injuries or illnesses (U.S. Department of Labor, 1986). Occupational illnesses and injuries occurred at a rate of 8 cases per 100 full-time workers in 1984. One in four workers will be disabled for at least a year prior to retirement (Swaton, 1981). Disability from a work-related injury is a risk for all working persons. Yet Americans are generally unconcerned about the adequacy of their protection against the risks and consequences of disability.

Social Security and Workers' Compensation programs are the social insurance programs established to protect workers against the financial impact of disability. Established as individual state programs, each Workers' Compensation program operates independently under its own law. Workers' Compensation complements the Social Security old-age survivors and disability insurance (OASDI) program in offering income-maintenance and medical protection for short-term disability and for permanent partial disabilities. Both provide benefits for permanent total disability and death. A 1980 Department of Labor study estimated that, at an annual cost of about $3 billion, the Social Security Disability Insurance program and public welfare supported about five times as many severely disabled workers as did Workers' Compensation (U.S. Department of Labor, 1980).

In recent years, there have been many questions about the adequacy of the Social Security and unemployment insurance systems. However, less attention has been directed toward whether or not the Workers' Compensation and Social Security disability systems provide financial security against disability. The "sure and certain relief" of Workers' Compensation legislation leads workers and the general public to believe they are protected from the physical and economic consequences of work-related injury. There is minimal awareness of how inadequate that protection may be. What are the consequences to workers and their families of serious injury? Are workers securely protected or are they and their families at risk of personally bearing the economic consequences of work-related injury?

According to the recent International Center for the Disabled Survey of Disabled Americans (Taylor, Kagay & Leichenko, 1986), "not working" is perhaps the truest definition of what it means to be disabled. Their comparisons between working and non-working disabled persons showed that work made a vast difference in the quality of life of disabled persons. Those who worked received much more money, were more satisfied with life, and were much less likely to say that their disability had prevented them from realizing their full potential.

The ICD survey found that while two-thirds of all disabled Americans between the ages of 16 and 64 were not working, a large majority (66%) of those not working said that they wanted to work. Interestingly, those who became disabled later in life were significantly less likely to be working than those who were disabled either at birth, or during childhood, adolescence or as young adults. It is important to note that it was not only those persons disabled after age 55 who were less likely to be working. Persons disabled in middle adulthood (age 35-55) were also significantly less likely than those disabled before age 35 to be working. Although only about half of all disabling injuries are work-related, rehabilitation for a disability sustained at work takes longer than for the same disability occurring elsewhere (Menninger Foundation, 1983). In terms of the consequence of unemployment, men in the prime of their work life (age 35-55) who are injured on the job may be the most severely handicapped population in the United States.

The 1980 Department of Labor Report to Congress on Occupational Diseases estimated that 280,000 of the 1 million workers (28%) severely disabled by job-related diseases and injuries were without any form of financial assistance (Reutter, 1980). However, it was suggested that a high proportion of the 280,000 were women and minorities, and most were elderly. This suggestion is not supported by the data reported in the present article. The majority of Washington state Workers' Compensation

[1]Associate Professor, Child and Family Studies

[2]Extension Family Economics Specialist and Associate Professor, Child and Family Studies

claimants, with claims involving compensation for 120 days or more of time loss from work (serious claims), were married males between the ages of 35 and 65. If these workers are seriously disabled, unemployed, and not receiving any financial assistance, their wives and families, as well as the workers, will suffer (Ray, Gecas, Lee & Tarnai, 1986).

Underlying Workers' Compensation laws is the concept of a "no fault" liability insurance system designed to ameliorate the uncertainty surrounding compensation for job-related disabilities. Employees relinquish their rights to legal action in exchange for income and medical payments and rehabilitation services. From their inception, Workers' Compensation laws have reflected concern for both compensation for disability and rehabilitation from injury. However, until recently rehabilitation referred almost exclusively to physical restoration. In the 1970's, some states--a few by statute, others by administrative regulations--recognized the importance of the return-to-work objective of Workers' Compensation and vocational as well as medical rehabilitation became an objective of Workers' Compensation programs.

Evaluations of Workers' Compensation vocational rehabilitation programs have been quite favorable. The California Workers Compensation Institute (1983) reported that 80% of a sample of rehabilitated workers whose 1976 injuries produced permanent disability returned to productive employment, earning on average about 95% of their pre-injury wages. The Workers Compensation Research Institute study of outcomes of vocational rehabilitation in New York reported that 58.2% of workers completing vocational rehabilitation programs returned to work. Of those who returned to work, the median income was 74% of pre-injury income (Gardner, 1986). It is generally assumed that the most disabled workers are referred to vocational rehabilitation programs and that workers who do not receive rehabilitation services are as likely or more likely to be employed. However, these studies, which have included only workers who develop rehabilitation plans, do not provide a complete picture of the economic consequences of work-related injury.

A recently completed Washington State University study suggests that the return to work rate for the entire population of seriously injured workers is much lower (Ray et al., 1986). This study of 2,540 Washington state workers, whose claims were closed in 1983-84, found that seriously injured workers were twice as likely to be unemployed a year or two after their injury as workers with minor injuries. Only half of the seriously injured workers were employed a year or more after their claim had been closed. Twelve percent were retired, 18% were retired on disability and 20% were unemployed. An additional 15% of those employed were earning less than two-thirds as much as before injury. Less than 6% of the seriously injured workers participated in vocational rehabilitation programs. These rehabilitated workers were no more likely to be employed than the other 94% of seriously injured workers (Ray et al., 1986). This study also reported that most seriously injured workers are male, in the prime of their worklife and family providers (Ray et al., 1986). When such workers are seriously injured, both they and their families suffer the consequent effects.

The present paper examines the financial consequences of serious work-related injury in greater detail. The objectives are to:

1. Describe the current personal income of workers in three injury groups considered to be minor injuries, moderate injuries and serious injuries.

2. Compare current personal income to personal income before injury for workers who are employed full-time, employed part-time, retired on disability or unemployed in each of the three injury groups.

3. Determine if workers who are not receiving income from employment or Workers' Compensation disability payments are receiving other forms of financial assistance such as unemployment insurance, welfare or federal disability insurance payments.

4. Describe the assistance provided by family members to workers in various employment and income situations in each of the three injury groups.

5. Determine the extent to which injured workers personally bear the economic costs of serious work-related injuries.

Methodology

Sample

The sample of injured workers was drawn from the data tapes of the Washington State Department of Labor and Industries. All claimants surveyed had claims closed in 1983 or 1984. By design, the claimants fell almost equally into one of two groups. The first group were claims for the cost of medical care. These claims represented very minor injuries which required medical treatment but did not involve more than three days absence from work (compensation for time lost from work begins after 3 days). Most Workers' Compensation claims involve such minor injuries. (75% of all Workers' Compensation claims are claims for medical-aid only.)

The second group were claims for compensation for time lost from work as well as for the cost of medical care. Only 25% of all Workers' Compensation claims involve time loss compensation. This second group involves injuries which may have an effect on the workers' lives. However, not all of these claims involve serious injuries.

Previous reports of this research have indicated that workers with compensable claims involving 120 days of time loss perceived their

injury as serious. Ninety-seven percent reported that their injury was serious, quite serious or extremely serious. Three-quarters reported that they were unable to work or limited in the work they could do and two-thirds reported that they experienced pain quite a bit or a great deal of the time (Ray et al., 1986). Therefore, this second group was further divided into two groups: those involving less than 120 days of time loss compensation and those involving 120 days or more of time loss compensation.

In comparison to the second group, the third group (compensable claims involving 120 days or more of time loss compensation) represents more serious injuries or more difficult to resolve claims. Only 4% of all Workers' Compensation claims are claims involving compensation for 120 days or more of time loss from work. This paper compares these three groups of workers:

1. Medical only, workers with claims for medical aid only (N=1237).

2. Less than 120 days, workers with claims for less than 120 days of time loss compensation (N=1013).

3. 120 days or more, workers with claims for 120 days or more of time loss compensation (N=269).

Response Rate

Questionnaires were mailed in September, 1985 and returned in late 1985 or early 1986. The mail survey procedure was modeled after Dillman's (1978) Total Design Method but with considerable additional individual follow-up of nonrespondents by telephone and personal visits. Completed questionnaires were obtained from 2,540 of the 4,104 potential respondents whose questionnaires were deliverable for a response rate of 61.9%.

The size of the sample and response rate insure that results can be interpreted with considerable confidence as accurately reflecting the characteristics and opinions of the entire population of injured workers in Washington State. It is reasonable to expect they also have relevance for injured workers elsewhere.

Description of Respondents

Approximately three-quarters of all injured workers are male. This percentage was not significantly different for any of the injury groups. However, workers with more serious injuries were more likely to be over 30 and to have less education than workers with minor injuries. There was little difference in the types of industries in which the three groups were employed.

Analysis

This paper is primarily interested in describing in specific detail the financial situation of injured workers. Therefore, crosstabs with chi-square tests of significance were used to determine differences among the injury groups regarding employment status, extent of injury and a variety of economic variables. The large sample makes it possible to examine a number of variables simultaneously without losing precision using the chi-square test. Although a more sophisticated statistical analysis would achieve greater precision regarding the magnitude of relationships, it would not show the specific descriptive details as clearly.

Results

Income patterns are different before and after injury. Table 1 shows the percentage of respondents currently employed full-time, employed part-time, retired and unemployed in each income category both before the injury and currently for each injury group. It is apparent that the only sizeable percentages of persons currently earning incomes over $20,000 a year are in the employed full-time categories. Only the employed full-time group as a whole appears to be better off now than before injury. There is a noticeable drop in the percentage of part-time, retired and unemployed persons at the $15,000 level and above. Before injury, those who are now retired or retired on disability were as likely as those currently employed full-time to be in the high income brackets. Now, less than one-fifth of them have incomes of at least $20,000 compared with three-fifths of the full-time employed. Among those currently unemployed, whether looking for work or not, almost half are in the lowest income bracket, less than $5,000. In all, four-fifths of the unemployed make less than $15,000. Before injury, the respondents who are now unemployed were scattered throughout the income range, with almost one-third making $20,000 or more, and about one in twelve making $30,000 or more. After injury, less than one-tenth of the unemployed respondents were making $20,000 or more.

Table 1 also shows the percentage of workers in each current income category for each injury group by employment status. Less than 10% of seriously injured workers are currently receiving $25,000 or more in personal income: Less than one-fourth are currently receiving $20,000 or more. Even for full-time employed workers, the percentages of seriously injured workers in the two lowest income categories are significantly higher than the percentages for two less serious injury groups. Similarly, the percentages of seriously injured workers in the two highest income categories are significantly lower than the percentages for the other two injury groups, for even full-time employed workers. Thus, although full-time employed workers are most likely to be as well off as or better off than before their injury, seriously injured workers are not as well off as workers in the other injury groups, even when they are employed full-time.

Seriously injured workers who are not employed full-time are very unlikely to be receiving more

Table 1. Current Employment Status by Personal Income Before Injury and Current Income

Personal Injury Before and After Injury by Injury Group		Current Employment Status				
		Full-time (N=1597)	Part-time (N=326)	Retired (N=223)	Unemployed (N=269)	Total (N=2415)
Medical Aid Only		(N=828)	(N=172)	(N=62)	(N=115)	(N=1177)
<$5,000	Before	5.44%	32.84%	21.21%	26.88%	12.29%
	Current	1.61	33.55	22.50	50.00	11.74
$5,000-	Before	11.82	28.36	6.06	19.35	14.84
9,999	Current	7.63	34.21	10.00	21.00	12.90
$10,000-	Before	18.66	19.40	3.03	16.13	17.94
14,999	Current	14.59	15.79	32.50	13.00	15.30
$15,000-	Before	18.97	7.46	21.21	13.98	16.83
19,999	Current	18.34	9.87	15.00	5.00	15.69
$20,000-	Before	20.84	7.46	24.24	9.68	17.83
24,999	Current	25.17	2.63	5.00	6.00	19.25
$25,000-	Before	12.75	2.24	15.15	9.68	10.96
29,999	Current	13.25	0.66	7.50	2.00	10.11
$30,000	Before	11.51	2.24	9.09	4.30	9.30
and over	Current	19.41	3.29	7.50	3.00	15.01
Chi square (Before)=166.88, df=18, p=.000; (Current)=463.66, df=18, p=.000						
Time Loss Compensation <120 Days		(N=674)	(N=121)	(N=80)	(N=100)	(N=975)
<$5,000	Before	3.90%	19.81%	5.97%	8.70%	6.56%
	Current	1.68	23.08	16.95	49.41	10.18
$5,000-	Before	9.51	20.75	5.97	20.65	11.83
9,999	Current	6.20	26.92	11.86	15.29	10.06
$10,000-	Before	14.77	19.81	10.45	20.65	15.69
14,999	Current	15.08	23.08	35.59	15.29	17.51
$15,000-	Before	18.17	13.21	22.39	17.39	17.80
19,999	Current	15.91	18.27	18.64	10.59	15.86
$20,000-	Before	20.20	13.21	17.91	13.04	18.38
24,999	Current	19.10	3.85	6.78	4.71	14.91
$25,000-	Before	16.30	4.72	19.40	6.52	14.05
29,999	Current	17.76	2.88	5.08	3.53	13.61
$30,000	Before	17.15	8.49	17.91	13.04	15.69
and over	Current	24.29	1.92	5.08	1.18	17.87
Chi square (Before)=82.13, df=18, p=.000; (Current)=345.80, df=18, p=.000						
Time Loss Compensation ≥120 Days		(N=95)	(N=33)	(N=81)	(N=54)	(N=263)
<$5,000	Before	4.60%	16.13%	9.72%	2.04%	7.11%
	Current	9.64	30.77	24.24	45.45	23.74
$5,000-	Before	12.64	16.13	16.67	18.37	15.48
9,999	Current	10.84	50.00	22.73	15.91	20.09
$10,000-	Before	14.94	25.81	15.28	24.49	18.41
14,999	Current	14.46	11.54	24.24	27.27	19.63
$15,000-	Before	24.14	16.13	11.11	18.37	17.99
19,999	Current	25.30	3.85	13.64	4.55	15.07
$20,000-	Before	21.84	9.68	26.39	16.33	20.50
24,999	Current	22.89	0.00	12.12	4.55	13.24
$25,000-	Before	10.34	3.23	8.33	14.29	9.62
29,999	Current	8.43	0.00	1.52	2.27	4.11
$30,000	Before	11.49	12.90	12.50	6.12	10.88
and over	Current	8.43	3.85	1.52	0.00	4.11
Chi square[a] (Before)=21.63, df=18, p=.249; Chi square (Current) not a valid test because 35% of cells have expected frequencies of less than five.						

[a] See [a] Table 2.

than $15,000 in income. Less than a third of seriously injured workers who are retired or retired on disability report a current personal income of $15,000 or over. Only 8% of those employed part-time and only 11% of those unemployed receive personal income of $15,000 or over. Almost two-thirds of all seriously injured workers are currently receiving less than $15,000 in personal income. Interestingly, there are no significant differences in the percentage distributions for current personal income between workers with medical claims and workers with compensable claims with less than 120 days time loss. Only workers with compensable claims with 120 or more days of time loss are substantially less likely to be employed full-time, more likely to be unemployed and less likely to be currently receiving $15,000 or more in personal income.

Current employment status is related to pre-injury personal income for all groups except the most seriously injured. Table 2 shows that, among those with medical claims only and those with less than 120 days of time loss, the higher the income before injury, the lower the likelihood of unemployment. However, the general pattern that unemployment is substantially more likely at low income levels does not hold up for injured workers with 120 days or more of time loss. Seriously injured workers are likely to be unemployed irrespective of their pre-injury income. Injury places workers at all income levels at risk of unemployment.

The unemployment rate among those with medical claims only and those with less than 120 days of time loss is about 10%: Among the most seriously injured, it is twice that. Serious injury produces high unemployment rates even among those formerly earning high incomes, which is not true for the less seriously injured. Of those formerly earning over $25,000, 7% of those with medical claims only and 7% of those with

Table 2. Personal Income Level Before Injury by Current Employment Status and Extent of Injury

Current Employment Status and Extent of Injury	Personal Income Before Injury							
	<$5,000	5,000-9,999	10,000-14,999	15,000-19,999	20,000-24,999	25,000-29,999	30,000+	Total
Medical Only	N=111	N=134	N=162	N=152	N=161	N=99	N=84	N=903
Full-time	31.53%	56.72%	74.07%	80.26%	83.23%	82.83%	88.10%	71.21%
Part-time	39.64	28.36	16.05	6.58	6.21	3.03	3.57	14.84
Retired	6.31	1.49	0.62	4.61	4.97	5.05	3.57	3.65
Unemployed	22.52	13.43	9.26	8.55	5.59	9.09	4.76	10.30
Chi square = 166.88, df = 18, p = .000								
Less Than 120 Days	N=56	N=101	N=134	N=152	N=157	N=120	N=134	N=854
Full-time	41.07%	55.45%	64.93%	70.39%	75.80%	80.00%	75.37%	68.97%
Part-time	37.50	21.78	15.67	9.21	8.92	4.17	6.72	12.41
Retired	7.14	3.96	5.22	9.87	7.64	10.83	8.96	7.85
Unemployed	14.29	18.81	14.18	10.53	7.64	5.00	8.96	10.77
Chi square = 82.13, df = 18, p = .000								
120 or More Days	N=17	N=37	N=44	N=43	N=49	N=23	N=26	N=239
Full-time	23.53%	29.73%	29.55%	48.84%	38.78%	39.13%	38.46%	36.40%
Part-time	29.41	13.51	18.18	11.63	6.12	4.35	15.38	12.97
Retired	41.18	32.43	25.00	18.60	38.78	26.09	34.62	30.13
Unemployed	5.88	24.32	27.27	20.93	16.33	30.43	11.54	20.50
Chi square[a] = 21.63, df = 18, p = .249								

Note. A number of respondents failed to answer one or more of the questions. This number is highest for financial questions. The problem is compounded the more variables that are being investigated simultaneously. Non-response was particularly high for income before injury because some of those with medical claims only did not realize an injury claim had been filed and so responded "had no injury" rather than giving their income before the injury. Thus, Ns are smaller in Table 2 than in Table 1, and all are less than the total number in the sample (Medical only N=1237, <120 days N=1013 and ≥120 days N=269).

[a] Chi-square may not be a valid test as 21% of cells have expected frequencies of less than 5. Twenty percent is often considered allowable without invalidating the procedure. If Employed Full-Time and Employed Part-Time are combined, Chi-square (Before) is valid and = 14.78, p = .254. Chi-square (Current) is still not a valid test as 28% of the cells still have expected frequencies of less than five.

less than 120 days of time loss are unemployed, compared to 20% of those with 120 days or more of time loss compensation.

Roughly 70% of both the medical claimants and the less than 120 days time loss claimants are now employed full-time in comparison to only 36% of the seriously injured. As one might expect, almost nine times as many of the seriously injured group are now retired or retired on disability as of the medical claims only group. Pre-injury income level has little relationship with retirement or retirement on disability for any of the injury groups. Retired people are scattered throughout the income span. Serious work-related injury leads to retirement, retirement on disability and unemployment for workers regardless of their pre-injury level of income.

Respondents were asked a variety of questions to identify where injured workers get their income or how they support themselves. They were asked whether they or their families received money from a list of sources including earnings from employment, interest from savings and investments, Social Security, V. A. benefits, disability payments, third party recovery, unemployment compensation, retirement pension, alimony or child support, regular assistance from family members, SSI and welfare. They were also asked whether they had had to use their savings or borrow money to meet their minimum needs and whether another member of their family had had to seek work because of their injury. Results of these questions are shown in Table 3.

Although 44% of seriously injured workers are currently receiving less than $10,000 per year, only 5% report receiving welfare or Aid to Dependent Children. Statistically, a significantly larger proportion of the most seriously injured than of the other injury groups and of the unemployed than of the other employment groups report welfare income, but the actual percentages are very, very small.

Table 3. Financial Support by Employment Status and Extent of Injury

Current Employment Status and Extent of Injury	Percent Responding YES [a]					
	Welfare or ADC	Unemployment Compensation	Income Other than Earnings and Savings	Regular Assistance from Family	Other Family Members Seek Work	Use Savings or Borrow
Full-time						
Med. only	[b] .63[b]	9.13***	21.52***	2.03[b]	*** 4.27***	***17.50***
<120 days	.47[b]	7.50***	22.88***	2.02[b]	8.74*	37.19***
120+ days	2.25[b]	6.67***	26.67***	1.12[b]	34.07	65.96
Part-time						
Med. only	[b] .62	19.88	40.12	6.83	*** 2.05	***18.49
<120 days	.88	14.41	42.86	5.31	11.82	35.96
120+ days	3.13	6.25	59.38	9.38	25.00	68.75
Retired						
Med. only	[b] 1.89	[b] 3.77	83.33	[b] 1.89	*14.58	***30.00
<120 days	1.37	5.48	91.78	0.00	13.51	37.66
120+ days	3.95	0.00	86.84	0.00	30.26	64.47
Unemployed						
Med. only	8.18	30.00	60.91	8.18	***14.71	***33.33
<120 days	7.14	28.57	63.27	7.14	19.57	61.29
120+ days	11.76	20.00	62.75	6.00	42.31	84.91
Totals by Injury Group						
Med. only	***1.39	*12.47	***31.39	3.40	*** 5.54	***19.43
<120 days	1.36	10.43	36.08	2.83	10.83	39.67
120+ days	5.12	7.14	56.08	2.77	32.81	69.62
Totals by Employment Status						
Full-time	] .71***	8.29***	22.40***	1.97***	8.15***	29.49***
Part-time		16.45	43.14	6.54	8.33	30.82
Retired	2.48	3.00	87.68	.50	20.20	45.81
Unemployed	8.49	27.52	62.16	7.36	22.36	54.84

[a] Chi-square tests of significance are reported as follows: ***, $p \leq .001$; *, $p \leq .05$.
Significant differences among employment status groups but within injury group are indicated to the right of the top injury-group figure.
Significant differences within employment status group but among injury groups are indicated to the left of the relevant group figures.

[b] Chi-square not valid test due to low expected-frequency cell counts.

There is a significant difference among injury groups in the receipt of unemployment compensation, with those least seriously injured more likely to be receiving it. Seven percent of the seriously injured, 10% of the compensable less than 120 days time loss and 12% of the medical aid claimants report receiving unemployment compensation. Only 27% of all of the unemployed report someone in the family receiving unemployment compensation. Eight percent of the full-time employed and 16% of the part-time employed report someone in the family on unemployment. There is no evidence that either the welfare system or the unemployment system provides benefits to seriously injured workers who are unable to return to work and are not receiving Workers' Compensation system benefits.

When we look at the receipt of any form of income other than from earnings or interest from savings and investments, over half of seriously injured workers receive some form of unearned income. This measure includes all transfer payments, disability payments from any possible source, Social Security, alimony, assistance from other family members, welfare, unemployment compensation, etc. The seriously injured are significantly more likely than those with medical claims or those with less than 120 days of time loss to be receiving some unearned income. Yet, one-third of the unemployed, seriously injured workers report receiving no income. Retired workers are the most likely to be receiving unearned income, likely due to Social Security. There is little difference by injury group for full-time employed workers, but seriously injured part-time workers are much more likely to be receiving unearned income.

Very few respondents report receiving regular assistance from other family members such as parents or employed children. Unemployed and part-time employed respondents are more likely to report such assistance, but the numbers are small, only 7% of each group. There is no significant difference among injury groups in the receipt of regular assistance from other family members.

In contrast, seriously injured workers are much more likely to report that another family member has sought work as a result of their injury. Approximately two-thirds of all respondents indicated that their spouse was working before their injury. A similar percentage reported their spouse was currently working. One third of seriously injured workers reported that another family member had sought work because of their injury. In all employment status groups, the most seriously injured were more likely to report that this happened, with the unemployed reporting it most frequently. Although the medical claimants who were working either full-time or part-time were unlikely to have another family member seek work as a result of their injury, a third of the full-

Table 4. Use of Selected Economic Resources by Comparative Earnings and Extent of Injury

Comparative Earning Status and Extent of Injury	N	Percent Responding YES [a]: Use Savings or Borrow Money	Percent Responding YES [a]: Family Member Had To Seek Work
Earning More than Before Injury			
Medical claim only	388	***15.75***	*** 3.29***
Less than 120 days	306	33.78***	6.80***
120 days or more	35	47.06***	35.29*
Earning Same or Almost as Much			
Medical claim only	373	***18.99	*** 3.81
Less than 120 days	368	36.67	7.22
120 days or more	48	62.50	21.74
Earning 2/3 or Less			
Medical claim only	71	***41.18	***18.18
Less than 120 days	86	58.54	23.75
120 days or more	52	86.27	48.00

[a] Chi-square tests of significance are reported as follows: ***, $p \leq .001$; *, $p \leq .05$.
Significant differences among employment status groups but within injury group are indicated to the right of the top injury-group figures.
Significant differences within employment status group but among injury groups are indicated to the left of the relevant group figures.

time and a fourth of the part-time seriously injured workers reported that they used this resource.

The most frequently used resource was using savings or borrowing money to meet minimum needs. The most seriously injured are significantly more likely to use their savings or borrow, with almost 70% reporting this response. Almost two-thirds or more of seriously injured respondents in every employment status report that they used their savings or borrowed money to meet their minimum needs. Respondents with medical claims are the least likely to use savings or borrow, but still one in five reports it. Among those who are unemployed, the figures are even higher. Eighty-five percent of the most seriously injured report using savings or borrowing, and, even among those with medical claims, one-third report it.

The respondents were asked whether, in their current employment, they were earning more than before their injury, about the same, almost as much, only about two-thirds as much, less than half or only minimum wage. This perception was found to correspond closely to the actual difference between income before injury and current income. Table 4 looks at two resources that might be available to injured workers in trying to maintain their accustomed level of living. Respondents are grouped by those earning more than before, the same or almost as much and two-thirds or less of their pre-injury income. Looking first at the use of savings or borrowing as a means of meeting minimum needs, it is apparent that the most seriously injured are significantly more likely to use this method regardless of change in earnings. In addition, as one might expect, those earning two-thirds or less are significantly more likely to report the use of savings or borrowing irrespective of seriousness of injury. It is worth noting, however, that even among the least seriously injured earning more than before, 15% report using savings or borrowing to meet minimum needs. Among the most seriously injured earning two-thirds or less, almost nine out of ten report using savings or borrowing.

The pattern is similar for another family member seeking work as a result of the injury. Those most seriously injured are significantly more likely to report that happened regardless of change in earnings. Those earning two-thirds or less are significantly more likely to report it regardless of extent of injury. However, for the two less seriously injured groups, earning two-thirds or less results in a major increase in the percentage reporting that another family member had to seek work. For the seriously injured group, there is a less consistent relationship between change in earnings and the percentage reporting that another family member sought work.

Discussion

Although Workers' Compensation laws vary from state to state, there are substantial commonalities in the Workers' Compensation systems across the states. For the last decade, most states have been experiencing rapidly escalating costs. Moreover, costs have been escalating even though the rate and number of injuries has been declining. These increasing costs have led to extensive concern for the costs of Workers' Compensation and the risk to employers' profitability margins of Workers' Compensation costs. Given the difficult economic conditions of the last few years, these concerns are readily understood. Yet amid concerns about sharply rising costs of Workers' Compensation systems, focus on the consequences of work-related injury for injured workers and their families is lost.

Less than 40% of seriously injured workers are employed full-time one to two years after their claim has been closed. Twenty percent are unemployed, 30% are retired or retired on disability and 12% are employed part-time. Seriously injured workers in all employment groups experience a substantial reduction in their current income in comparison to pre-injury income. Those seriously injured workers who return to full-time employment experience the smallest reduction. Two-thirds of seriously injured workers who do not return to full-time employment report current personal income of less than $15,000. Only a minority of seriously injured workers are compensated for the consequences of injury by being returned to full-time employment. An even smaller minority of those who are not returned to full-time employment are compensated for the consequences of injury through disability payments.

The major resources for seriously injured workers in dealing with the economic consequences of injury are use of savings or borrowing to meet minimum needs and another family member seeking work. A larger percentage of seriously injured workers report using savings or borrowing to meet needs than report unearned income from any source whatsoever. One-third of unemployed, seriously injured workers do not report income from any source. These seriously injured workers report that they do not receive income from earnings, disability payments of any type, unemployment compensation or welfare. The long-term costs of serious, work-related injury appear to be paid out of workers' savings and dependence on the labor of family members.

One interesting finding was that some workers in all injury and employment groups were using their savings or borrowing money to meet their minimum needs. Although money management and debt management education would not provide a solution for seriously injured workers, all injured workers might well benefit from such programs. Knowing how to manage money and make the best use of limited resources can help families gain and maintain control and avert serious debt problems. Programs of this kind, such as those offered by Cooperative Extension, might reduce workers' stress levels and thereby contribute to some reduction in the likelihood of injury as well as the adverse economic consequences of injury.

Clearly, seriously injured workers are in substantial financial difficulty. The 44% of seriously injured workers who are currently receiving less than $10,000 a year have not been provided with disability income protection by the present Social Security OASDI and Workers' Compensation systems. They and their families are bearing much of the cost of serious work-related injuries.

The magnitude of the percentage of seriously injured workers who are not working full time and are also not receiving disability benefits is very surprising. This finding emphasizes the restrictiveness of the Social Security and Workers' Compensation programs' definitions of disability. Both Social Security's and Washington State's Workers' Compensation programs use employability as the criterion for closing a claim and terminating temporary disability benefits (medical care and time loss compensation). Regardless of whether the worker is actually employed, if jobs for which the worker is reasonably suited by education and experience are locally available, the worker is considered employable. Such a definition does not consider whether the injured worker is likely to be hired for the available job or whether the available job pays substantially less than the pre-injury employment. The present study suggests that many seriously injured workers who do not qualify as disabled under the restrictive definitions of Social Security OASDI and Workers' Compensation programs are unable to provide financial support for themselves and their families through employment.

One possible solution is personal disability insurance. According to Consumer Reports (Disability, 1983) almost anyone who earns a fairly good income and can afford the coverage should purchase disability income insurance. It is interesting that the benefits available through personal disability insurance policies, particularly those rated highly by Consumer Reports, are very different from the benefits available through Workers' Compensation and Social Security OASDI programs. For the consumer to be willing to buy personal disability insurance, a much more adequate package of benefits is required.

Consumer Reports rated policies which provide short-term coverage for two years or less as inadequate--the wrong kind of disability protection. Policies which differentiate between illnesses and injuries were also rejected. Policies which define disability as the inability to perform any occupation whatever were rated as below-average. Good policies were those which are guaranteed renewable and noncancellable and define disability as a reduction in income as a result of sickness or accident. Only a very small percentage of workers have the long-term disability income protection Consumer Reports regarded as adequate protection for themselves and their families.

Should workers be encouraged to purchase individual disability insurance to supplement the benefits provided by Social Security OASDI and Workers' Compensation programs? Consumer Reports (Disability, 1983) made a strong case that all wage earners should purchase disability income insurance. They pointed out that most people carry life insurance to protect their dependents in case they die. But for persons younger than 65, a disabling illness or injury lasting three months or more is much more likely than death. A 22-year-old is seven times more likely to be disabled than to die, while the ratio is 3:1 for 35-year-olds. Certainly there is a strong case to be made that workers do not realize the inadequacy of their protection against disability (Lown, 1983). Lown argues that most college level personal finance texts do not adequately cover disability income protection and that it is the instructor's responsibility to supplement the text to assist students in planning disability income protection and to encourage students to evaluate employee benefits, particularly disability income benefits, along with salary when job hunting.

If workers are adequately educated as to the importance of disability income protection insurance, how will they evaluate state Workers' Compensation programs? The substantial costs of the state Workers' Compensation programs are presently causing great concern. When the inadequacy of the protection provided is clearly understood, won't those costs be regarded as even more objectionable?

It is highly unlikely that the majority of wage earners would be willing to purchase disability income protection individually. For all workers to be adequately protected from the consequences of disability, disability income protection would need to be incorporated into the Workers' Compensation program. Could adequate disability income protection be provided through the Workers' Compensation program? In 1984, 1.6 million workers were covered by Workers' Compensation in Washington State (State of Washington Department of Labor and Industries, 1985). The State Fund covered 78% of these workers. Assuming that 24% of the workers were women (Women workers accounted for 24% of the injuries and illnesses accepted in 1984), and that the Consumer Reports' estimated annual cost of the best rated disability income policy of $411 for a male and $566 for a female is accurate, it would have cost approximately $559 million to provide disability income protection for these 1.6 million workers. The Department of Labor and Industries State Fund received $458 million in premiums in 1984. Based on the preceding figures, this would be approximately $367 for each worker covered by the State Fund. Medical costs were approximately $143 million (State of Washington Office of Financial Management, 1986). Thus a very rough estimate of the cost of medical treatment and income protection for all workers in Washington State insured under the State Fund would be $702 million. Adequate income protection would require at least a 150% increase in Workers' Compensation costs. Given the enormous concern over the escalating costs of Workers' Compensation with its present inadequate benefits, there is little

doubt that employers would vigorously reject such a substantial increase in Workers' Compensation costs.

At present the financial consequences of work-related injury are hidden. They are paid by injured workers and their families. These costs must be explicitly recognized. If these costs were incorporated into the Workers' Compensation program, employers would have an economic incentive to consider more economically feasible alternatives such as rehiring seriously injured workers.

Full-time employment is the only economically feasible alternative that will afford substantial help to seriously injured workers. The lowest cost and most effective means of returning seriously injured workers to full-time employment is for employers to make available modified or different jobs for their seriously injured workers (California Workers' Compensation Institute, 1985). This will require that employers cease their attempts to rid themselves of workers who are injured on the job. It will also require substantially increased employer willingness to hire persons who have disabilities or who have had job-related injuries. State-wide labor pools may be necessary, particularly for workers injured in small businesses or in industries which have very few non-heavy labor jobs. Greater flexibility may be required in contracts with labor unions. Much further work is needed to determine the incentives and supports that must be offered to employers to enable them to rehire a greater percentage of their seriously injured workers.

So long as the costs of serious work-related injury can be passed on to injured workers and their families and these costs can remain unseen and unacknowledged, it is unlikely that workers will receive "sure and certain relief" from the consequences of work-related illnesses and injuries. If the prohibitive cost of adequate disability income protection were recognized by employers because they were paying these costs, then the economic benefits of rehiring seriously injured workers would be much more apparent. Improvements in the Workers' Compensation system require that all of us recognize that one in four workers will be disabled for at least a year prior to retirement and that the present Social Security and Workers' Compensation programs do not provide adequate protection for workers and their families against the economic consequences of such disability.

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THE PERSONAL FINANCIAL EFFECTS OF SERIOUS WORK INJURY: A DISCUSSION FROM THE CANADIAN PERSPECTIVE

Robin A. Douthitt, University of Wisconsin-Madison[1]

The effects of serious work injury on the personal financial circumstances of families noted by Ray and Horton are important not only for American families, but also for Canadian families. Before discussing the importance of their findings from the Canadian perspective however, it is important to first compare the parameters of the worker's compensation programs in each country.

In the United States, worker's compensation pays for medical expenses incurred by a worker injured on the job. If the injury results in more than three lost work days, worker's compensation will also replace part of the injured workers lost earnings. In Canada, citizens are protected by universal health care coverage. This means that the Canadian workers compensation program does not pay out medical benefits. Thus, claims are only for compensation for lost earnings. Unlike the U.S. system, Canadian workers are eligible to be reimbursed for any lost work time i.e., their injury need not incapacitate them for longer than three days before they are eligible to receive benefits.

Because of the difference in program participation rules, we observe different claim rates between the two countries. Ray and Horton document that 75% of the U.S. workers compensation claims are for medical aid only. In Canada, of the one million reported work related injuries, approximately one-half million workers filed for workers compensation benefits in 1985 (Pring-Mill, 1987). Thus, differences noted between the two countries in claim rates for lost earnings among all suffering work related injuries is in part attributable to the immediate versus 3 day delay in benefit coverage. Stated another way, ceteris paribus, we might expect that an additional 25% of U.S. claimants for workers compensation would qualify for wage replacement if program rules allowed for immediate compensation for lost work time.

The strengths of this research are that it provides insight regarding (1) recipient characteristics, (2) family management strategies used to meet the financial demands of work related disability and (3) the relative importance of workers compensation benefits in implementing management strategies.

Although to date, little has been written documenting the characteristics of any workers compensation claimants, of particular interest to me was the profile presented by the authors of the claimants suffering a disability of more than 120 days. Anecdotal characterizations of these individuals are that they experience health related problems of questionable nature and a standard of living comparable (if not superior) to that enjoyed prior to their injury. These results dispel such myths in regard to the average claimant. Among this group, standards of living appear to drop dramatically despite financial management coping strategies.

Financial coping strategies most notably include depletion of family savings, and the increased labor force participation of a family member. Surprisingly few respondents relied on public assistance, although financial characteristics indicate that many would have been eligible. It is only through study of these management strategies that we can assess where intervention by the resource management specialist on behalf of such families will be most effective. The authors discuss several such policy implications of their work. To these I would add (1) increased advocacy efforts by professionals encouraging employers to offer group disability insurance coverage and (2) assistance in the form of educational or day care benefits, if necessary, for the added worker to enhance his or her market skills.

Finally, this study demonstrates that although workers compensation wage replacement benefits are an important financial resource to persons who suffer major work related disabilities, the family unit continues to bear a large share of the disability cost. An important extension of the present study would be to examine income replacement rates by source. From this information we could better assess the adequacy of benefits and thus need for changes in the program parameters.

Given the important insights this study provides for the economic interface between U.S. families and the workers compensation program, the results are likely applicable to many Canadian families as well. However, only through a modified replication of this study will we be able to assess whether inferences drawn from the Ray and Horton results can be applied with confidence to the Canadian experience.

To my knowledge no similar study has been completed in Canada. The result of perhaps most interest in a replication study is the extent to which Canadian families deplete their savings in order to replace lost earnings of the injured worker. In the U.S., savings were clearly hard hit. Given that Canadian families save at a rate greater than that of their U.S. counterparts, this may mean they are at increased exposure to risk i.e., that Canadian families may have more (financially) to lose when a family member experiences a major injury on the job. To the extent that U.S. workers depleted their savings to meet uncovered medical expenses associated with their disability, this exposure will be overstated for the Canadian family given universal health care coverage. However, if families are relying on savings to maintain their pre-injury standard of living, the Canadian family financial experience could be even more devastating.

[1]Assistant Professor of Family Economics

Ray and Horton have laid a firm foundation on which additional research must be built. More in depth study is needed to assess the financial implications of a major work related disability for specific families at different stages of the life cycle. Questions of interest that come to mind include: What are the implications of major disability on the economic well-being of families with dependent children? What management strategies do families where all adult members are already full time labor force participants implement in response to reduced financial resources? What are the economic implications for persons incurring a disability as they near retirement age? Do they deplete savings earmarked for retirement use that they will never have the opportunity to replace with future earnings?

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84

THE PERSONAL FINANCIAL EFFECTS OF SERIOUS WORK INJURY: DISCUSSION

Jean M. Lown, Utah State University[1]

The Ray and Horton paper fills a gap in the family economics literature. Its most important contribution is the emphasis on rehabilitation for meaningful work since research indicates that employment is associated with perceived quality of life (Campbell, 1981). Better disability income protection for workers and more comprehensive government payments may help the disabled in the short run but providing meaningful employment opportunities should be the core of our public policy.

While the Washington State survey provided information on income of the disabled, another important source of support in the event of loss of income is individual assets. Lower socioeconomic status workers are more likely to become disabled; their pre-disability income and assets are likely to be low. The Social Security Administration's New Beneficiary Survey (NBS) provides information on the assets of newly disabled beneficiaries (Yeas, 1986). The NBS sample is different from the Washington State sample because Social Security pays benefits only to the severely disabled. Nonetheless, the data provide valuable supplementary information. The median value of assets was very small; apart from home equity--which accounted for most of the wealth--the median asset value was $3600. In general, the older, married disabled reported the highest assets. Young single men were the worst off with median assets of less than $50. Gender differences were small and inconsistent. The most common asset was a savings or checking account with a median value of $300. These low values--considered along with the personal income data from the Washington State sample--suggest a grim future for the disabled and their families.

In a study by the Social Security Administration 75% of severely disabled received some form of public income maintenance and almost 25% had family incomes below the poverty level even when welfare benefits were included (US Dept. HHS, 1980). The low rate of receipt of welfare benefits in the Washington State sample may reflect the short time period since the disability. Contrary to the family safety net theory, the extended families of the disabled provide no more financial or household assistance than families of healthy persons (Franklin, 1977). Morgan (1980) confirmed that income from other family members only partially replaced lost wages and receipt of transfer income only minimally compensated for the loss of income due to disability.

Relatively few workers are covered by long term (5 years or more) disability income protection (Health Insurance Association of America, 1986). Perhaps unions and personnel offices need to improve disability income protection.

As the authors noted, rehabilitation and employment are the keys to solving the dilemma for disabled workers. In addition to strengthening public and private disability income protection programs, we need a government-private sector partnership working with groups such as the National Organization on Disability to identify companies that have implemented effective rehabilitation programs. Information from the California Workers Compensation Institute cited by Ray and Horton suggests that such programs exist. We need to find out how these programs were implemented in order to encourage the adoption of similar programs by other companies. To accomplish this goal, key personnel could be offered a year sabbatical from their jobs at full pay to assist other companies in implementing programs. Incentives such as government subsidies for the wages of newly rehabilitated workers could be offered. Reductions in Workers Compensation and income taxes could be extended to participating companies. With fewer new workers entering the workforce businesses may be receptive to programs to retain experienced workers. In addition to improved disability income protection education for individuals, union officials and personnel policy directors, a creative public-private partnership to develop rehabilitation programs to assure meaningful employment in the private sector is the key to the problem reported by Ray and Horton.

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[1]Assistant professor, Home Economics and Consumer Education

RELATIONSHIPS BETWEEN HOUSEHOLD TASK ALLOCATION AND PERCEIVED STRESS IN NONMETROPOLITAN FAMILIES

Rebecca J. Ward, Oregon State University Extension Service[1]
Judith D. Zimmerman, Bank of America[2]

Abstract

Respondents from 235 nonmetropolitan households were surveyed to determine the impact of household task allocation on perceived stress scores. This study was designed as a test of a portion of the Deacon and Firebaugh family management theoretical framework.

It was hypothesized that the greater the degree of sharing of tasks between respondents and spouses, the lower would be the perceived stress scores of respondents.

Multiple regression analyses were utilized to test the hypotheses. Neither percentages of all shared household tasks nor percentage of shared household tasks within single task categories proved to be statistically significent in explaining variation in perceived stress scores of respondents.

Introduction

A common belief is that life in nonmetropolitan areas is quiet, carefree, and safe from the everyday problems of fast-paced metropolitan life. However, it has been suggested that people in nonmetropolitan areas may actually experience more stress than their metropolitan counterparts. Liberman and Frank (1980) hypothesized that because people living in rural areas are not exposed to constant change, they do not develop the coping skills of those living in urban areas and thus may perceive new situations with greater amounts of stress.

Stress has been measured in two basic ways, as an individual's biological response to life events and in terms of behavioral variables or perceptions of life events (Cohen, Kamarck & Mermelstein, 1983; McCubbin et al, 1980). Life events, in turn, may take the form of catastrophic, unusual, or nonnormative circumstances, e.g., war, natural disasters, etc., or normative transitions such as childbirth, childlaunching, and retirement, which may be seen as natural consequences of the family life cycle (McCubbin et al, 1982). For the purpose of this investigation, stress is conceptualized in terms of the individual's perception of life events. It is further suggested that stressor life events prompt change in the family or household system which, in turn, alters the amount of stress perceived by the individual.

According to Proshansky, Nelson-Shulman, and Kaminoff (1979), ". . . responses (to stress) are more susceptible to variations in physical and social settings than changes in personality structures" (pg. 5). Physical and social settings comprise the environment in which individuals engage in control activities which may influence stress and coping. In the process of environmental control, i.e., making changes in the physical setting, families may enhance functioning in such areas as household task performance, problem solving, and decision making. This increase in effective functioning, in turn, may lead to decreases in perceived stress of family members.

Proshansky's hypothesis fits well with a major premise of family management theory that environmental inputs into the family system (i.e., increasing and/or decreasing demands and resources) may cause changes in managerial activity (Heck & Douthitt, 1982). Changes in managerial activity, e.g., changes in planning, task accomplishment, and decision making, may foster effective family functioning and decrease perceived stress levels of individual household members.

The basic conceptual model devised to describe managerial activity consists of three components (Deacon & Firebaugh, 1975). Inputs, in the form of demands and resources, enter the family system and act as stimuli for managerial activity. Throughputs consist of processes used by the family to change these demands and resources into outputs such as met demands and satisfaction resulting from resource use.

Although this theory is widely used to explain household managerial activity, specific components of the model have not as yet been subjected to extensive tests of validity. Empirical studies that have been conducted have focused mainly on inputs and outputs, thus leaving a research gap in the study of throughput and its influence on the other components of the system (Beard & Olson, 1984).

Heck and Douthitt (1982) indicated a need for further empirical study of the components of the family management model since comprehensive measures of theoretical management concepts are lacking in existing research. Beard and Olson (1984) pointed to the importance of examining the connection between outputs and managerial activity and ability in order to determine the effects of managerial activity on quality of life. Berger (1984), in her review of the major thrusts in home management research, also noted the importance of applying current holistic management theory to the practical problems of individuals and families.

This study applied family management theory to stress and coping within nonmetropolitan households. In response to the need for further

[1]Extension Agent

[2]Commercial Banking Officer

empirical testing of the family management model, this study considered the relationships between perceived stress of household members and managerial activity. The specific activity studied as a stress coping mechanism was the allocation of household tasks between members of the housing unit. It is suggested that through allocating household tasks, effective household functioning may be enhanced which, in turn, may decrease perceived stress of individual household members.

The present study was concerned specifically with testing the interaction between throughput and output in the managerial system. However, prior to pinpointing targeted variables, it is important to conceptualize the model in its entirety. First, resources and demands enter the family (or household) management system in the form of inputs which include socioeconomic factors (e.g., family size, family life cycle stage, household income, education, etc.) and available community resources (e.g., public services, number of relatives in the area, use of private services such as churches, etc.).

In response to these initial demands and resources, the household mobilizes activity in the form of throughput as it allocates household tasks. This study focused on basic activity implementation, i.e., who does what task, and was not designed to measure the planning stage of throughput.

Output in this model takes the form of increased or decreased perceived stress of respondents. As previously noted, output consists of met demands and satisfaction. It therefore becomes important to conceptualize perceived stress as an output to the extent that it decreases satisfaction from managerial activity.

Review of Literature

Stress theory is built upon a framework developed by Hill (1958) in which the family crisis process is perceived in the form of a model containing four variables:

"A (the event)--interacting with B (the family's crisis meeting resources)--interacting with C (the definition the family makes of the event)--produces X (the crisis)".

Research has shown that in stressful situations over which families have little control, psychological support is most helpful in alleviating stress. However, in the stress of dealing with interpersonal relationships, it is the actions one takes which have the greatest impact on decreasing stress (Pearlin & Schooler, 1978). Brandwein et al (1974) identified domestic responsibilities as one area of family functioning which may be altered as a way of exercising control over the environment in response to changes in family structure and resources (such as those which occur following the advent of a stressor event).

Burr (1973) identified the characteristic of adaptability as a contributor to experiencing less crisis in response to a stressor event. Olson and McCubbin (1982) defined family adaptation as "the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress" (p. 51). The allocation of household tasks can be seen as a factor in family adaptability which may function to ameliorate the effects of stress in the family system.

It has been estimated from studies of two parent families that seventy percent of the economic value of housework in these families is performed by wives (Hefferan, 1982a). In addition, husbands and wives tend to perform different tasks, with men's tasks grouped around home and automobile repair and maintenance; and women's tasks grouped around housecleaning, food preparation, and child care activities (Blood & Wolfe, 1960; Walker & Woods, 1976). However, women's task performance may be moving away from physical housecleaning toward family care and managerial activities (Hefferan, 1982b).

In addition, hours spent by full time homemakers on household tasks has decreased from the average 52-56 hours per week from 1926 to 1966, to 44 hours per week in the 1970s (Hefferan, 1982b). It has further been noted that husbands' contribution to household tasks has increased only slightly in response to their wives' decrease in household work hours (Walker & Woods, 1976).

A factor complicating the performance of household tasks is the great increase in labor force participation of women in recent years. Although employed wives spend less time overall on housework than do non-employed wives (8.1 hours per day when not employed compared with 4.8 hours per day when employed 30 hours or more per week), employed wives spend a substantially greater amount of total time in work and family task performance roles combined than do either non-employed wives or husbands (Pleck, 1977; Walker & Woods, 1976).

Meiners and Olson (1984) also found paid employment to be the largest contributor to decreases in household task performance time of women regardless of their area of residence (i.e., farm, rural nonfarm, or urban). Husbands have been found to contribute a similar amount of time to household task performance regardless of the employment status of their wives (Pleck, 1977). Thus, while husbands with working wives contribute proportionately more time to household work than do husbands with nonemployed wives, less household work is being done overall.

Husband's time at work may function as a constraint on his participation in household work. Model (1982) found that as their working hours decreased, husbands devoted more time to household task performance. However, Wheeler and Arvey (1981), in their study of dual career families, argued that even when husbands' time in household task performance increases, segregation by task still occurs along the traditional division of labor. Quality of task performance may be the most important variable in explaining the traditional division of household tasks,

with the spouse having the most training in the performance of a specific task taking responsibility for that task (Wheeler, 1984). This may have implications for coping with stress in that household labor division resulting from task performance experience, and thus traditional sex role orientation, may limit resource flexibility. Reduced flexibility may, in turn, reduce family adaptability and thus limit the household's ability to cope with a stressor event.

Income and career status may also have an effect on husband and wife household task differentials. Nichols and Metzen (1978), in their study of a national sample of two parent families, found a positive correlation between wives' hourly earnings and husbands' time spent in housework. Conversely, decreases in household task performance of husbands have been noted with increases in their income; although spousal employment, sex role ideology, and family life cycle stage may serve as pressures on husbands' household task performance regardless of income (Model, 1982).

In a study of traditional, dual work and dual career families, Littwin (1982) noted that household tasks were more likely to be shared as wives' career commitment increased. Rapoport and Rapoport (1971) also found wives' career status to be positively correlated with husbands' contribution to household labor. Model's 1982 study of 650 women in Detroit found that high income husbands with equally earning spouses participated more in household labor than did men in other income groups. However, if their wives did not earn as much, these high income men ranked lowest of all the income groups in household labor participation.

Educational levels of husbands and wives have also been studied in relation to their effect on household division of labor. Ericksen, Yancey, and Ericksen (1979) noted a positive correlation between wives' education level and increases in the number of shared tasks. In addition, Farkas (1976) found that husbands of women with less than a high school education contributed more to household labor as husbands' educational level increased. However, Model (1982) did not find significant differences in the time husbands spent in household labor as a function of the educational level of husbands or wives.

Family life cycle stage has also been found to influence the amount of time spent by men and women in the performance of household tasks. In general, the presence of children under 12 has been found to increase the amount of time spent in household task performance for both husbands and wives (Ericksen, Yancey & Ericksen, 1979). In particular, the age of the youngest child has been found to be inversely related to the time spent in housework by wives (Hafstrom & Schram, 1983).

Model (1982) also found increased male participation in household chores to be associated with newlywed and retirement stages of the life cycle (which are generally characterized by the absence of children). Although this may appear to contradict the idea that children increase the household task participation of both spouses, Model concluded that children may be substitute labor sources for husbands' household work. White and Brinkerhoff (1981) also pointed to the value of children's work in the home.

Family size may also affect household task performance. Nichols and Metzen (1978) found a positive correlation between family size and increase in time spent in household task performance for wives. However, the opposite was found for husbands. In other words, as family size increased, wives' household task performance time increased while husbands' household task performance time decreased.

Social supports, such as family and kinship networks, have also been studied to determine their effects on household role allocation. Bott (1971) hypothesized that the greater the "connectedness" of the wives' social network, the greater would be the segregation of roles within the household. This reasoning suggests that closely-knit social support groups would tend to support norms via positive and negative sanctions, thus leading to the maintenance of segregated roles within individual households. However, this hypothesis has not been supported empirically. Ericksen, Yancey, and Ericksen (1979), in interviews conducted with 1780 adults in Philadelphia, found that household members with closely-knit local kinship networks were more likely to share tasks than were those without kinship networks. In addition, Model (1982) found no relationship between the presence of a kinship network and husbands' household labor participation.

It is important to consider the impact of social supports on coping with stress. The importance of social supports in ameliorating the effects of stress has been documented in cases of illness, unemployment, and catastrophic events (see McCubbin et al, 1980 for a thorough review of the related literature).

As conceptualized in this study, household task allocation may be considered as a throughput in the family management model. Lovingood and Firebaugh (1978) have also considered household task allocation as output from role formation processes in response to inputs of human resources and household tasks to be completed. In their conceptual framework, they defined household task allocation in terms of household task performance roles, which consist of both making decisions regarding who will perform a task and the actuation of that decision.

However, the classic Deacon and Firebaugh (1975) family management model does not define output in the same way. Rather, output is defined as met demands and satisfaction resulting from managerial activity. The goals attained and resources created by household task performance roles can therefore be considered as output. The current study utilized the framework established by Deacon and Firebaugh. Perceived stress (decreased satisfaction) was used as the output variable, with household task allocation (as part of throughout) serving as a response to the demands and resources (input) placed on the managerial system. Household task allocation was seen as a mediator in decreasing the perceived stress

of household members responding to demands and resources entering the family system.

Description of the Sample

The data utilized in this research were collected in the fall of 1984, as part of the Nevada Agricultural Experiment Station Regional project entjtled "Coping With Stress: Adaptation of Nonmetropolitan Families to Socioeconomic Changes". The sample was selected utilizing a stratified random sampling technique. The sample consisted of 235 respondents, one respondent per household.

Nonmetropolitan counties in Nevada were stratified by latitude into North-South designations. This was done to enable testing of commonly stated North-South differences in the state. Two counties were randomly selected from each strata. One town in each county, in which the majority of the county population resided was then chosen. Households in each town were chosen by random selection utilizing telephone directories as the sampling frame. Each of the names chosen was mailed a questionnaire with personally addressed cover letter explaining the purpose of the study. Follow-up was completed according to guidelines of Mail and Telephone Surveys: The Total Design Method (Dillman, 1978), resulting in a 50% response rate.

Respondents without spouses were omitted from the original sample to obtain the sample for this study. Forty-eight percent of the respondents were male and fifty-two percent were female. Mean length of marriage for the respondents was 20 years. Household size ranged from two to ten with a mean of 2.14. The sample was ninety percent Caucasian and two percent Hispanic with the remainder including Native American (2%), Basque (1%) and Asian (1.5%). Household income was measured by twelve categories ranging from under $5,000 to $80,000 or more. Median income fell into the $25,000 to $29,999 per year category for 1983. Approximately eighty-eight percent of respondents and eighty-four percent of spouses had achieved at least a high school diploma. Sixty-five percent of the households consisted of one spouse employed full time (35 hours or more per week) and the other spouse nonemployed. There were no respondent households in which both spouses were employed full time. Eleven percent of the households consisted of one spouse employed part time and the other spouse nonemployed. Households made up of two nonemployed persons accounted for twenty-four percent of the sample, the majority of whom were retired.

Sample characteristics were comparable to the Nevada nonmetropolitan population in general on household size, income, education and ethnic background. In 1980, Nevada's mean household size was 2.6, median family income was $22,000 and mean education was 12.6 years. The population was 82% Caucasian, 6% Black (concentrated in metropolitan areas) and 6% Hispanic. Mean age in Nevada was 31.8, younger than our sample mean of 45 years. It is important to note that the Nevada figures include children, while our study considered adults only.

Social network scores ranged from one to four with one indicating no social network and four indicating a large social network. Mean social network was 2.8, indicating the average network for respondents and their families to be a medium size.

Family life cycle stage was measured by age of respondents' youngest child. The majority of the sample (almost 51 percent) had no children under the age of eighteeen living in the home. The youngest child in fourteen percent of the households was six to twelve years old; the youngest child in ten percent of the households was twelve to eighteen years old, and the youngest child in seven percent of the households was eighteen years or older. The mean age of both respondents and spouses was forty-six.

Recent events were scored on a scale of 0 to 17, with a score of 0 indicating that no stressful event had occurred in the last 12 months, and a score of 17 denoting that 17 had occured. The score was compiled by summing the total number of life events experienced. The mean for this variable was 1.5, which may be considered a low recent events score. Respondents experiencing 1 to 3 events constituted 55 percent of the sample. Events included death of spouse or other close family member and friends, divorce or separation, illness, legal violations, financial problems, major unresolved conflicts, physical victimization, drug and alcohol abuse and psychological problems.

The Perceived Stress Scale of Cohen, et al (1983) was used in this study as the dependent variable. The fourteen item Perceived Stress Scale (PSS) was designed to measure the degree to which situations in one's life are appraised as stressful. Perceived stress scores for this sample ranged from 4 to 45, with mean score of 21.22. Although this perceived stress score could not be considered high, it was slightly above the median of 20.96 and thus does not denote low perceived stress.

Household tasks were defined as being specific jobs or units of labor performed in the home. A total of forty tasks were listed for respondents to identify which household member (or outside help) performed each task. A household task concentration score (TCS) was developed by summing the number of tasks reported as being shared by the spouses and dividing the sum by the total number of tasks. Household task concentration scores ranged from 0 to 1, with a 0 indicating no sharing of tasks between respondent and spouse and a 1 indicating sharing of all tasks between respondent and spouse. Scores ranging between 0 and 1 represent the percentage of total tasks shared between spouses. The mean TCS score was .244, indicating that approximately one-quarter of the tasks were shared between spouses. The modal score was 0, with one spouse having total responsibility for the performance of all of the tasks in 7 percent of the sample. Both spouses shared all of the tasks in only 0.4 percent of the sample.

In addition to obtaining concentration scores on the total number of household tasks, scores were also calculated for the total number of household tasks within specific categories. To define task categories, the 40 tasks were grouped by Principal Components Factor Analysis into the following categories: Care of family members; care of home interior; care of home exterior; financial management; interaction outside of the household (market and social).

Mean task concentration score for the category of family member care (FCCS) was .185, indicating that only 18.5 percent of these tasks were shared between spouses. In thirty-seven percent of the households, family member care tasks were soley the responsibility of one spouse, with only 1 percent of the respondents indicating that they shared all tasks within this category with their spouses.

Mean task concentration score for the category of interior home care (IHCS) was .194, indicating that, on the average, 19 percent of the interior home care tasks were shared between spouses. In 34 percent of the households, these tasks were the responsibility of one spouse, with only 0.4 percent of the respondents indicating that they shared all tasks within this category with their spouses.

Mean task concentration score for the category of exterior home care (EHCS) was .194, indicating that 19.4 percent of these tasks were shared between spouses. In 30 percent of households, exterior home care tasks were the responsibility of one spouse. Only 0.4 percent of the respondents indicated that they shared all tasks within this category with their spouses.

Mean task concentration score for the category of financial management (FMCS) was .261 indicating that 26.1 percent of these tasks were shared between spouses. Financial management tasks were the responsibility of one spouse in 36 percent of the households, with 6 percent of the respondents indicating that they shared all tasks within this category with their spouses.

Mean task concentration score for the category of outside interaction (OUTCS) was .392, indicating that 39 percent of these tasks, such as letter writing, phoning friends, etc. were shared between spouses. Outside interaction tasks were the sole responsibility of one spouse in almost 11 percent of the households, with 3 percent of the respondents indicating that they shared all tasks within this category with their spouses.

Household tasks in general were not highly shared between spouses when looking at the tasks in total or as single task categories. However, it should be noted that there was more sharing in the single tasks categories of financial management and outside interaction tasks than other task categories.

Data Analysis

The hypotheses for this research were:

A. There is no relationship between household task concentration scores and perceived stress scores of respondents.
B. There is no relationship between single category task concentration scores and perceived stress scores of respondents.

Analysis of data was completed by ordinary least squares multiple regression. The dependent variable for both hypotheses was respondent's perceived stress score. The independent variables were household task concentration score, single task category task concentration scores, recent events, household employment status, respondent's gender, respondent's and spouse's education, household income, family life cycle stage, and social network. Recent events, employment status, employment status, gender, education, income, life cycle stage and social network were used as control variables since the literature suggests their influence on perceived stress. Perceived stress score acts as the output, and household task concentration score and single task category task concentration scores act as throughputs. The control variables are inputs (as resources and demands).

Results

Table 1 lists means and standard deviations of the dependent and independent variables entered into the regression equation. Table 2 lists Pearson correlation coefficients for these variables.

TABLE 1. Mean Scores and Standard Deviations of Regression Variables

VARIABLE	MEAN	STANDARD DEVIATION
Dependent Variable		
Output:		
Perceived stress score	21.217	8.257
Independent Variables		
Throughputs:		
Household task concentration score	0.244	0.192
Family member care task concentration score	0.185	0.252
Interior home care task concentration score	0.194	0.224
Exterior home care task concentration score	0.194	0.216
Financial management task concentration score	0.261	0.307
Outside interaction task concentration score	0.392	0.297
Inputs:		
Recent events	1.549	1.697
One spouse employed full time/ one spouse employed part time*	0.004	0.070
One spouse employed full time/ one spouse nonemployed*	0.528	0.500
One spouse employed part time/ one spouse nonemployed*	0.081	0.273

TABLE 1. (continued)

VARIABLE	MEAN	STANDARD DEVIATION
Gender*	0.438	0.497
Education of respondent*		
Less than high school	0.655	0.476
Completed high school	0.660	0.475
Trade or technical school	0.663	0.472
Some college	0.498	0.501
Education of spouse*		
Less than high school	0.111	0.314
Completed high school	0.285	0.452
Trade or technical school	0.111	0.314
Some college	0.166	0.373
Total household income	5.770	2.470
Family life cycle stage	5.234	2.250
Respondents' social network score	2.775	0.731

*Entered as dummy variables

Multiple regression analysis was used to determine the effect of task concentration scores on the perceived stress scores of respondents, controlling for various sociodemographic variables.

The results of the multiple regression analysis for Hypothesis A are presented in Table 3. The equation resulting from the analysis is as follows:

PSS = 23.79 - 4.67TCS + 1.72REC - 0.97EMPa + 1.83EMPb + 0.87EMPc - 1.47SEX - 0.53EDRa - 2.26EDRb + 1.32EDRc - 0.91EDRd - 0.14EDSa - 0.68EDSb + 2.52EDSc + 0.92EDSd - 0.30INC - 0.77LIF + 0.89NET

Where:

PSS = respondents' perceived stress score
TCS = household task concentration score
REC = number of recent events experienced by respondent in the last twelve months
EMPa = one spouse employed full time/one spouse employed part time
EMPb = one spouse employed full time/one spouse nonemployed
EMPc = one spouse employed part time/one spouse nonemployed
SEX = gender of respondent
EDRa = respondent education - less than high school
EDRb = respondent education - completed high school
EDRc = respondent education - trade or technical school
EDRd = respondent education - some college
EDSa = spouse education - less than high school
EDSb = spouse education - completed high school
EDSc = spouse education - trade or technical school
EDSd = spouse education - some college
INC = total household income
LIF = family life cycle stage
NET = respondent's social network score
E = error term

TABLE 2. Pearson Correlation Coefficients For Dependent and Independent Variables

	PSS	SEX	REC	TCS	INC	EDRa	EDRb	EDRc	EDRd	EDSa	EDSb	EDSc	EDSd	LIF	NET	EMPa	EMPb	EMPc	FCCS	INCS	EHCS	FMCS
SEX*	-.18																					
REC	.40	-.14																				
TCS	.06	.19	.07																			
INC	-.07	.11	-.09	.35																		
EDRa	-.04	-.17	-.06	-.26	-.09																	
EDRb	-.03	-.34	.00	-.23	-.09	.35																
EDRc	.12	-.34	.11	-.28	-.18	.36	.37															
EDRd	-.02	-.18	.02	-.31	-.11	.22	.09	.23														
EDSa	-.07	.10	-.03	.06	-.14	.03	.02	-.01	-.08													
EDSb	-.06	.15	-.00	.14	.10	.06	.10	-.03	-.10	-.22												
EDSc	.11	-.01	-.00	.10	.04	.03	.02	-.01	-.11	-.12	-.22											
EDSd	.10	-.07	.13	.14	.13	-.06	-.14	-.00	-.08	-.16	-.28	-.16										
LIF	-.25	.19	-.16	-.36	-.23	-.04	-.06	-.09	.04	.15	-.20	-.02	-.03									
NET	.04	.05	-.03	.11	-.07	.06	.20	.06	-.06	.02	.18	.06	-.10	-.03								
EMPa	-.05	-.06	-.06	-.02	-.05	.06	.06	.06	.07	-.02	.10	-.02	-.03	.06	.02							
EMPb	.10	-.13	-.03	.40	.46	-.09	.02	-.09	.10	-.16	.14	.14	.17	-.37	-.03	-.07						
EMPc	-.04	.18	-.01	.16	.03	.02	.02	-.02	-.01	.09	.09	-.01	-.01	-.03	.09	-.02	-.31					
FCCS	.19	.11	.07	.74	.10	-.13	-.14	-.10	-.18	-.00	.10	.04	.07	-.61	.14	-.05	.33	.13				
INCS	.02	.19	.02	.73	.18	-.48	-.39	-.52	-.31	.06	.07	.10	.14	-.07	-.00	-.02	.24	.14	.37			
EHCS	.07	.03	.12	.64	.16	-.15	-.15	-.08	-.15	.06	.01	.06	.13	-.15	.08	.03	.30	.11	.36	.44		
FMCS	-.08	.16	.04	.69	.21	-.13	-.08	-.16	-.29	.04	.09	.09	.00	-.05	.04	-.06	.18	.09	.26	.45	.27	
OUTCS	-.05	.23	.01	.83	.35	-.15	-.15	-.22	-.26	.07	.18	.09	.12	-.11	.14	.02	.31	.13	.42	.57	.48	.65

*See Results Section for explanation of variable abbreviation.

TABLE 3. The Relationship of Household Task Concentration Score to Perceived Stress Score

VARIABLE	UNSTANDARDIZED BETA	STANDARD ERROR	STANDARDIZED BETA
Throughput:			
Household task concentration score	- 4.674	3.699	- 0.108
Input: (Resources/Demands)			
Recent events	1.723***	0.299	0.354
One spouse employed full time/ one spouse employed part time+	- 0.973	7.582	- 0.000
One spouse employed full time/ one spouse nonemployed+	1.836	1.403	0.111
One spouse employed part time/ one spouse nonemployed+	0.866	2.068	0.029
Gender+	- 1.478	1.164	- 0.089
Education of respondent+			
Less than high school	- 0.526	1.168	- 0.030
Completed high school	- 2.263*	1.237	- 0.130
Trade or technical shcool	1.323	1.218	0.076
Some college	- 0.908	1.062	- 0.055
Education of spouse+			
Less than high school	- 0.144	1.781	- 0.006
Completed high school	- 0.680	1.410	- 0.037
Trade or technical school	2.520	1.804	0.096
Some college	0.922	1.578	- 0.042
Total household income	- 0.298	0.235	- 0.089
Family life cycle stage	- 0.773**	0.252	- 0.211
Respondents' social network score	0.887	0.706	0.077

* p<0.10
** p<0.05
*** p<0.001

+Entered as dummy variables

Dummy variables were entered where data were not measured intervally. Household employment status respondent gender, and respondent and spouse education level were entered into the regression analysis as dummy variables. The omitted categories were as follows:

1. Household employment status: both respondent and spouse nonemployed
2. Gender: female
3. Education: at least a four year college degree

The independent variables explained 20 percent of the variation in respondents' perceived stress scores (adjusted $R^2 = 0.199$). The level of significance was $p < 0.001$.

Of the seventeen independent variables, only three were statistically significant in explaining variation in respondents' perceived stress scores. Recent events, with a standardized Beta value of 0.354 was the most important of the variables in explaining perceived stress scores. The F ratio was highly significant at the 0.001 level. Stress scores could be expected to increase, on the average, by 1.72 for each additional increae in recent events.

Family life cycle stage was significant at the at the 0.05 level. With a standardized Beta value of -0.211, this variable proved to be the second most important independent variable in the model. This equation indicates that respondents' perceived stress scores decrease as their children get older.

The education category consisting of respondents whose highest educational attainment was a high school diploma also was significant in explaining variance in perceived stress scores. The standardized Beta value for this variable was -0.130, with a F ratio significant at the 0.10 level. In comparison with respondents having at least a college degree, respondents with this level of education would be expected to feel lower levels of stress.

Household task concentration score, with a standardized Beta value of -0.108 was not significant in explaining variance in perceived stress scores. While the expected change in perceived stress scores is a decrease of 4.7 points for each unit increase in shared tasks, the variable itself did not prove to be statistically significant.

Multiple regression analysis was also used to determine the effect of single category task concentration scores on perceived stress scores. It is suggested that the type of household task

shared between spouses may be important in determining the flexibility of resource use and may thus have an impact on coping with stress. The results are presented in Table 4. The equation resulting from the regression analysis is as follows:

PSS = 21.43 + 3.60FCCS + 0.80IHCS - 1.64EHCS - 2.68FMCS - 1.92OUTCS + 1.73REC - 1.38EMPa + 1.66EMPb + 0.47EMPc - 1.54SEX - 0.30EDRa - 1.85EDRb + 1.52EDRc - 1.04EDRd - 0.19EDSa - 1.49EDSb + 2.70EDSc + 1.15EDSd - 0.30INC - 0.40LIF + 0.77NET

Where:

FCCS = family member care task concentration score
IHCS = interior home care task concentration score
EHCS = exterior home care task concentration score
FMCS = financial management task concentration score
OUTSC = outside interaction task concentration score

TABLE 4. The Relationship of Single Category Task Concentration Score to Perceived Stress Score

VARIABLE	UNSTANDARDIZED BETA	STANDARD ERROR	STANDARDIZED BETA
Throughputs:			
Family member care task concentration score	3.597	3.217	0.110
Interior home care task concentration score	0.801	3.760	0.022
Exterior home care task concentration score	- 1.644	2.818	- 0.043
Family management task concentration score	- 2.676	2.167	- 0.099
Outside interaction task concentration score	- 1.620	2.744	- 0.058
Inputs:			
Recent events	1.731*	0.303	0.356
One spouse employed full time/ one spouse employed part time+	- 1.376	7.646	- 0.012
One spouse employed full time/ one spouse nonemployed+	1.662	1.426	0.101
One spouse employed part time/ one spouse nonemployed +	0.470	2.096	0.016
Gender+	- 1.548	1.203	- 0.093
Education of respondent+			
Less than high school	- 0.301	1.242	- 0.017
Completed high school	- 1.851	1.278	- 0.106
Trade or technical school	1.518	1.347	0.087
Some college	- 1.038	1.072	- 0.063
Education of spouse+			
Less than high school	- 0.194	1.797	- 0.007
Completed high school	- 0.494	1.453	- 0.027
Trade or technical school	2.702	1.841	0.103
Some college	1.145	1.607	0.052
Total household income	- 0.298	0.244	- 0.089
Family life cycle stage	- 0.401	0.328	- 0.109
Respondents' social network score	0.767	0.719	0.068

* $p < 0.001$

+ Entered as dummy variables

The independent variables explained 20 percent of the variation is respondents' perceived stress scores (adjusted R^2 = .195). The model proved to be significant at $p < 0.001$.

Only one of the variables was statistically significant in explaining variation in the respondents' perceived stress scores when holding the other variables constant. Recent events was the most important variable in explaining perceived stress scores. The F ratio was highly significant at the 0.001 level.

When looking at the relative importance of the variables to each other in the overall equation, only recent events (B = 0.356), stood out as important. For the second hypothesis, the null cannot be rejected. Single task category concentration scores were not significant in explaining variance in perceived stress. It therefore appears that, for this sample, the type of household tasks performed did not differentially affect feelings of stress.

Conclusions and Recommendations

Neither percentage of all shared household tasks nor percentage of shared household tasks within single task categories proved to be statistically significant in explaining variation in perceived stress of respondents. This study, with its conceptualization of household task allocation as throughput and perceived stress as output of the managerial system, did not provide empirical support for the portion of the Deacon and Firebaugh management model studied here.

Despite the fact that the ways in which households in this sample allocated tasks between spouses did not affect the perceived stress scores of respondents, it is important to examine the significant relationships which did occur in the analysis. In analyses completed on both hypotheses, recent events proved to be the most significant variables in explaining variation in perceived stress scores. As the number of recent events increased, so did perceived stress scores. The current study suggests that environmental control, in the form of household task allocation, either was not utilized or was not utilized successfully by respondents to ameliorate the effects of stressful normative and nonnormative life events on the family system. However, since this study was cross-sectional rather than longitudinal in nature, it is difficult to determine whether stressor response time was adequate to effect role changes.

There were two other variables which proved to be statistically significant in explaining variation in respondents' perceived stress scores in the first regression. Family life cycle stage was positively related to perceived stress scores in that the younger the children in the family, the greater the respondents' perceived stress score. This finding supports the literature which suggests that younger children place more demands on the time and energy resources of the parents with resulting higher levels of perceived stress.

The current study found that less than a third of total household tasks were shared between spouses. This lends support to research conducted almost ten years ago in which it was found that one spouse was responsible for the majority of household tasks (see Pleck, 1977 and Walker & Woods, 1976). It is interesting to note that there was a moderate positive correlation between stress and the single category task concentration scores for family member care. It may be speculated that spouses may maintain segregation of tasks in this category as a way of decreasing stress.

Despite the moderate correlation between stress and family member care concentration scores (r = .19), correlations between stress and other single category task concentration scores indicated weak relationships. Interior and exterior home care task concentration scores were positively related to perceived stress scores, suggesting more stress associated with more sharing of tasks. On the other hand, financial management and outside interaction task concentration scores were weakly but negatively correlated with perceived stress scores, indicating lower feelings of stress associated with more sharing of these tasks.

In support of the findings of Pleck, (1977), household employment status has little effect on the amount of sharing of household tasks between spouses. However, it is important to note that none of the households in the current sample consisted of both spouses employed full time. Thus, dual work or dual career status was not studied.

The current study focused on household task allocation as throughput in the Deacon and Firebaugh family management theoretical framework to determine its effect on the perceived stress of respondents. Although household task allocation was not found to be significantly related to stress, other types of throughput activity may indeed have an effect on stress. Therefore, additional studies on this model could focus on planning activities (e.g., identifying input, setting standards, and sequencing action) and alternative implementing activities such as decision-making outcomes.

Output for this study took the form of respondents' perceived stress. However, future studies might focus on alternative measures of output. One suggestion is to look specifically at respondent and spouse satisfaction with household task allocation.

A major recommendation for future study is to duplicate this study utilizing a different sample. In particular, there were no households in the sample consisting of both spouses working full time. In looking at the current trend of increasing numbers of dual career and dual work families, it seems likely that more nonmetropolitan areas would have a number of dual career or dual work families. In addition, one-half of the sample did not have any children living in the home. Since family life cycle stage was significant in explaining variation in perceived stress (i.e., respondents with young children experienced more stress than other respondents), there is a need for additional data to be col-

lected on families with children. In general, more studies need to be completed comparing metropolitan with nonmetropolitan areas. Duplicating this study in a metropolitan area may be one way of meeting this need.

One area which was not addressed by this study was what effect the sharing of household tasks between respondents and children or other household members may have on perceived stress. By using the Deacon and Firebaugh model to test this aspect of household role allociation, it may be possible to help fill gaps in research regarding both the family management framework and the function of children's work in the family.

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RESPONSE TO "RELATIONSHIP BETWEEN HOUSEHOLD TASK ALLOCATION AND PERCEIVED STRESS IN NON-METROPOLITAN FAMILIES"

Nancy M. Kingsbury, Ph.D.[1]

Ward and Zimmerman are to be congratulated for their stimulating and timely paper on the issues of stress and coping in an understudied population, non-metropolitan households. The introduction and literature review present an overview of the Deacon and Firebaugh family management theory and its application to the concepts of stress and coping.

I have a few remarks and suggestions that may assist the researchers to make it a stronger contribution to the literature. First, the literature review implies that there will be a set of directional hypotheses formulated, but two null hypotheses are presented. My suggestion is that a thorough set of directional hypotheses on all the pertinent variables be developed from the rationale so well presented in the introduction and literature review.

Second, the literature review makes a strong case for the interaction effects of wife employment and household task sharing, which is one of the major variables of the study. The results indicated that none of the couples in the sample had full-time dual employment. The researchers pointed out that in order to test the model thoroughly, a sample with some dual employed couples was needed. I agree with them, and I would like to recommend that a more thorough discussion of this factor be included with the conclusions about the objectives of the study.

This low number of full-time employed wives is unusual when compared to the statistic from the general population that 60% of women are employed, most of them full-time. Of course, this was a non-metropolitan sample, which will account for some of this difference. A thorough discussion of these differences and a comparison of the respondents to the population studied on this issue would be helpful.

My third and last comment concerns the sample. A 50% return rate is at the lower end of acceptability for mailed questionnaires. The Dillman method, which was used, is intended to produce higher response rates. A discussion of whether all or part of the Dillman method was used, and the researchers' comments about why the results were lower would add to the clarity about this issue.

The description of the sample indicated that respondents on the average were older, had higher incomes, and had fewer young children than the population studied. In addition, the "recent events" score was low (1.5) and did not indicate much variability. Given the question about the biased nature of the sample, perhaps tests for normality on all variables is warranted.

The conclusion section of the paper pointed to the authors' awareness of some of the problems with sampling. I agree with Ward and Zimmerman that future studies with samples more normally distributed across variables are needed before strong conclusions about the relationship between household task allocation and perceived stress can be made.

[1]Assistant Professor, Department of Family Studies, University of Manitoba

RELATIONSHIPS BETWEEN HOUSEHOLD TASK ALLOCATION AND PERCEIVED STRESS IN NONMETROPOLITAN FAMILIES: DISCUSSION

Geraldine I. Olson, Oregon State University

I enjoyed reading this paper, partly because the authors deal well with a priority concern--that of stress on American families--especially rural families, and partly because they raise so many questions for interesting and important theoretical work that needs desperately to be done, for society and the field of home management.

Ward and Zimmerman have chosen one way to frame the problem, and it seems appropriate, but when significant results are not obtained, there are opportunities to relook at all the parts of the project and to push for better solutions--the next time around with the next data base or research project, when the sample, measurement and theory can be redesigned or refined.

I'd like to briefly examine all three here, as we consider the relationship between the two most important concepts in the paper--level of perceived stress and managerial strategies to reduce stress (measured in this case by the degree to which a number of household tasks are shared by the homemaker and spouse).

1. The sample: Because the group sampled was primarily "older" than the general population, one might speculate that their family roles would be fairly traditional and that the amount of "practice" they have had in each of the measured task areas would be fairly extensive. Although sharing of tasks may be a coping strategy, if the sharing is recent and it feels unfamiliar, the inverse relationship noted in some of the correlations seems reasonable.

On the other hand, if the stressor itself relates to changes in the demands on some particular role--i.e., financial management--then the "two heads are better than one" theory may obtain. A richer sample might allow better assessment of the variables and their interrelationships relative to the life cycle and age components.

2. Now for measures: Since patterns of task allocation are probably long standing, setting in just after the honeymoon period is over and/or the first child arrives, this variable may be a rather long range, persistent characteristic of families at least in the overall, general way it was measured for the purposes of this study. On the other hand, the perceived stress measures were "this past month" oriented. One might speculate whether the measures really allow the researchers to get at the idea of role responsiveness in times of crisis. This is probably a common problem as existing data cases are used to assess correlates of stress. However, if research is to improve in this area, theoretical work must be done to conceptualize and measure these variables in a way that is consistent with the relevant time parameters.

3. Framing the appropriate theory: This is also difficult and bears reviewing. The Deacon-Firebaugh framework is a good place to start, but although the processes are conceptualized and ordered for use, the specific variables are not identified. Thus we are free to determine for ourselves which phenomena are inputs, which throughputs and which are outputs. This is not as easy to do as it might seem. Nor is the direction of hypothesized effects predictable.

In this paper it is theorized that higher levels of task sharing (as "desirable management throughput") would be positively related to lower levels of stress. The first theoretical problem is proposing a dynamic change in relationship using a static model--not that the model can't be dynamic, but that it isn't as presented.

As long as we've freed our thinking in terms of hypothesized relationships, it seems logical to me to propose a negative relationship between lack of specialization and the most efficient allocation of resources. Stated positively, falling back on higher levels of specialization or human capital, as long as those skills are still appropriate to the task, may be the very best resource for dealing with stress. This was, in fact, the relationships noted for care of family members, interior and exterior home care are in this very direction. It makes sense to have the best qualified person deal with a particular problem on behalf of a household during conditions of stress. But this is only in general. As would be indicated by the correlational analysis, the type of task makes a difference, and so, I would guess, would the specific content of the source or sources of stress. What seems to be implied here is the need to analyze specific managerial strategies that might be employed in well-defined high stress situations--in a longitudinal framework, but this solution may be the ideal, and involve wishful thinking. In reality a useful strategy in one situation by one household in reducing stress, might add to the stress level in a similar situation in another household. This seems to me to be particularly true in the area of household task and/or role allocation, where feelings and attitudes may be highly personal, emotional and complex.

One way to approach the situation-specific nature of the relationship maybe to assess one's perception of the degree to which changes in specific task allocations among family members would reduce stress. If a subject perceives that a change would make a given situation better or worse, and that this change is not taking place, then an imbalance exists, and additional stress might be hypothesized.

Returning to the proposed model, then, some

given level of stress or perceived stress may become the demand on the system (ie, the input) with the throughput being the household's ability to use appropriate or acceptable managerial strategies that will not add to the stress levels (i.e., create havoc with strongly held values/standards tied to the situation). The trap here relates to whether we define "management practices" as the problem or the solution. I may have now talked myself into a very uncomfortable box--and though I don't want to stay here I really don't have the key to the lid. I may well be trapped with a broad definition of management, which allows for flexible responses to specific situations, on a day to day basis, and the identification of specific managerial strategies--such as flexible task sharing which becomes more generalized and less flexible in how they are perceived.

Again, we need to develop better measures of appropriate managerial behavior--especially in the context of stress--but also on a day to day basis. Better to end on a challenge than in a box!

PREDICTORS OF SEARCH TIME FOR THE PURCHASE OF A HOME FURNISHING DURABLE GOOD

Norleen M. Ackerman, Utah State University[1]
Leona K. Windley, Utah State University[2]

Abstract

Consumers might be expected to search for information before purchasing a household durable good because of the price, infrequent purchase, product innovation, quality variation and price dispersion. This study identified predictors of the amount of search time spent by 391 recent purchasers who responded to mailed questionnaires. The most important predictors of search time were behavioral factors. Two information factors and a resource factor were also significant predictors. Implications are drawn for educators, consumers, and future research.

Home furnishings are big ticket items in the household budget. They are often purchased at times of household formation or expansion; times when the demands on the family budget can be quite large. Professionals usually advise families to start with important, basic items and to purchase high quality. Mattresses are a specific example of the expert's advice to purchase high quality even if funds are scarce.

Mattresses are a basic, necessary and functional home furnishing. They are durable goods. The average life expectancy of an innerspring mattress is fourteen years. They are generally a big-ticket item, with an average price of several hundred dollars. While some home furnishings may reveal one's fashionability and taste to visitors, others are more functional, family oriented items. Mattresses, along with water heaters, washers and dryers, bedroom and kitchen furniture, are among the functionally oriented home furnishings. Such functional items are likely to be purchased on the basis of performance, durability and price, with less emphasis on styling and fashion trends. Therefore, the mattress may be considered a representative of this more functional group of home furnishings, with the study results generalizable to the functional segment of home furnishings purchases.

Consumers face a number of challenges in selecting mattresses which best meet their needs. Mattresses can be compared with packaged products where all that is visible is the outer covering; the interior construction cannot be viewed and evaluated unless the store provides cutaway models. However, even when shoppers view the model, they may not have sufficient knowledge to evaluate the quality of component materials, the degree of softness or firmness, and product durability.

[1]Assistant Professor, Home Economics & Consumer Education

[2]Extension Specialist, Housing & Home Furnishings

Other factors add to the difficulty of selecting mattresses. Prices may vary from list price to fifty percent of list price. Mattresses are often used by stores as a promotional item, which increases the range of price dispersion. Since mattresses last for many years, they are an infrequent purchase. Consumers are likely to forget the details of how to select a mattress in the years intervening since their last purchase. Innovations in mattress materials and construction also make it necessary to acquire new information before making a purchase.

Therefore, it was expected that difficulties in assessing quality, the potential for price variation, differences in personal preferences, and the amount of money being spent would motivate consumers to spend time seeking information that would help them to evaluate market offerings and make an effective purchase decision.

Purpose of Study

The purpose of the study was to identify factors which predict the amount of search time recent purchasers spent in gathering and evaluating information about mattresses and transacting the mattress purchase. Three types of factors--respondent's resources, information use and evaluation, and respondent attitudes and behavior--were related to search time.

Conceptual Framework

The conceptual framework for the study (figure 1) is discussed under four topical headings: search time, resource factors, information factors, and consumer behavior and attitudes.

Search Time

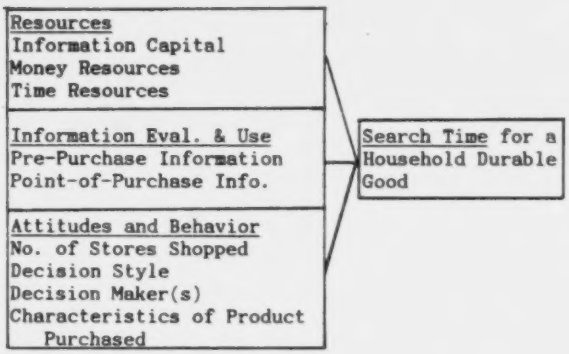
Search time has been defined as both pre-purchase and point-of-purchase information seeking, plus the transaction time necessary to make the purchase. The time may be spent searching for and reading information; talking with friends, acquaintances, and experts about the product, or shopping trips to stores to inspect the product and talk with salespeople.

The identification of market alternatives, development of standards or criteria for quality and performance, and the evaluation of alternatives in order to select the one best alternative to meet consumer needs within their budget constraints are all a part of the motivation for information search. An assumption of the research design used in this study which needs to be further tested elsewhere, is that increased search time will yield a better purchase decision and greater satisfaction with the product purchased.

100

Theoretical work has applied cost-benefit analysis to search time. Maynes' analysis included monetary and subjective direct costs of search as well as monetary and subjective opportunity costs. He measured benefits of search in terms of lower price paid and higher quality obtained (1976).

FIGURE 1. Model of predictors of search time for a household durable good.



Resources

Resource factors include the informational capital of the individual as well as time and money resources. Informational capital is a specialized form of human capital (Swagler, 1981). Information is acquired to meet specific purchase objectives. Information capital also accumulates from experience with the marketplace, experience with products and talking with and observing others. Since information acquisition is a learning process, factors associated with consumer learning may be used as measures of informational capital. The level of formal education is one measure of information capital. Informal educational experience, such as prior purchase and use experience, may also lead to an increase in information capital. Prior purchase and use experience are product specific measures of market experience. Age may be used as a proxy for general market experience.

The time and money resources of the individual may limit or facilitate the acquisition of information capital. These resource costs are dominated by the value of one's time and by prior commitments for the use of one's time. Thus wage rates and employment status are relevant measures. Income is also a measure of the financial resources of the family and influences the discretionary income which can be spent on durable goods.

Information

When shopping for products, it takes a certain amount of time to gather information, which makes information acquisition a feasible predictor of search time. The amount of time used for acquisition of information has been found to be affected by age, the shopping style of the consumer, price, prior personal experience, and availability of consumer information. Engel, Blackwell, and Kallet (1978) concluded that information made a difference in the extent of rational consumer decision making. They found that individuals below age 35, those with higher educational or occupational status, and those in the middle income categories engaged in more extended and rational consumer decision making, which included information gathering. Bettman (1979) suggested that the process of making buying decisions was internal, such as memory, or external such as using Consumer Reports or labeling.

Consumer Behavior and Attitudes

One of the theorized motivators of the search for information is the consumer's perception of risk in the purchase decision. It is suggested that risk will be greater when more money is being spent, when knowledge is less or the product is more technologically complex, when personal use time is greater or when people outside the immediate family will use or consume the item (Cox 1967). Bauer has suggested that warranties can provide quality assurance, thereby reducing risk (1960). Johnson (1954) has suggested that increased information can be used to reduce risk and that decisions may be delayed while information is being sought.

Decision making styles vary among shoppers and have implications for the amount of time spent in search. Sproles (1985) identified six different decision styles. Those styles include the quality conscious, brand conscious, value conscious, shopping avoidance, confused-information overload and fashion conscious shopper. The questions used in the factor analysis which identified Sproles six decision styles suggest that quality and value conscious consumers would be likely to spend more time shopping and that shopping avoidance and confused-information overload consumers would attempt to spend less time shopping.

Related Literature

Literature relevant to the study is discussed under four topical headings: search time, resource factors, information factors and attitudes and behavior.

Search Time

Studies show that the total time allocated to shopping or marketing by households has increased over time (Vanek, 1974). Shopping takes 12-14 percent of the time devoted to household work (Walker and Woods, 1976). Among the eleven states participating in the NE-113 Family Time Use Project, the mean shopping time of homemakers in the individual states ranged from 32 to 59 minutes per day; the spouses mean time varied from 10 to 32 minutes (Lovingood, et al., 1981). Hill (1985) found that women shopped an averaged 7.01 hours per week, while men shopped 3.93 hours per week. People spent considerably more time shopping for goods than for services, and about forty percent of shopping time was accounted for by travel related to shopping (Hill, 1985).

Resources

Bettman (1979) and Swagler (1981) have theorized that knowledge was negatively related to external search. Yet, there was little direct evidence to support this relationship. Bucklin (1966) found a slight tendency for people to shop less when they knew all the features they wanted in purchasing non-food items. However, Katona and Mueller (1955) found no relationship between knowledge and amount of search for appliances. Product specific market experience has been used as a proxy for knowledge in several studies. Katona and Mueller (1955) and Newman and Staelin (1971, 1972) found that increased positive experience led to less external search behavior for durable goods. However, Bennett and Mandell (1969) and Claxton, Fry, and Portis (1974) found no significant relationship between experience and external search.

Information Use and Evaluation

Consumers who search out information have been referred to as information seekers. According to Dunn and Ray (1979), information seekers tended to be near the upper end of the national income distribution; placed a high value on their time and were accustomed to paying for services to save time. Phillips and Sternthall (1977) indicated that consumers with higher educational levels and those younger in age exhibited greater search tendencies in general and greater information handling capacities. Thorelli (1979) concluded that rising standards of education make consumers more information conscious and more capable of evaluating information.

Consumers may vary in the types of information used and in their use and evaluation of the information. A study conducted by Whirlpool (1983) found that at least 70 percent of consumers indicated they are likely to believe information from manufacturers and consumer interest media. This attitude regarding the believability of information is supported by research concerning warranties and labels. Feick, et al, (1986) indicated that education was positively related to the use of all information sources except television and being employed was negatively related to the use of all information sources.

Some advertising contains factual information, while other advertising is misleading or is merely puffery (Leet and Driggers, 1983). Information seekers in the United States have been found to be more critical of advertising than are average consumers. Information seekers, however, make greater use of advertising than do average consumers (Thorelli, et al., 1975).

Stores and salespersons may affect the degree of information used and evaluated by the consumer. According to the Whirlpool study (1983), 99 percent of the respondents thought that courtesy was the characteristic that was most important in a salesperson. A salesperson's knowledge about products was the second most important factor; 72 percent of the respondents thought knowledge was an important characteristic.

Attitudes and Behavior

The empirical findings of Hughes (1977) support cost-benefit analysis; price does affect search time. Katona and Mueller (1954) found that consumers shop more carefully, which implies greater search time, when buying higher priced items. Ackerman (1982) found that husbands, but not wives, spent more time shopping during a week when the household was searching for an item which was priced at $100 or more. Hill (1985) found husbands spent more time shopping when a durable good was being purchased.

Gender may also influence consumer decision making and search time. Douglas (1976) and Strober (1977) suggested that working wives spent less time shopping for products and went to fewer stores. However, it may be the employment status rather than the gender of the person which is the determining factor. Ackerman found that full time employment of husbands and wives was related to decreased shopping time (1986).

Consumer buying decisions can be either individual or group decisions. A market study of home economists reported by the Better Sleep Council (1985) stated that women were involved in 70 percent or more of all bedding purchases. However, they found that men have been doing more of the household shopping in recent years and that seventy percent of purchases were made by couples.

Methods

The population sampled were purchasers of a household durable good, mattresses, at five cooperating home furnishings or bedding retailers in the Salt Lake City metropolitan area. The retailers ranged from high to low in sales volume and from home furnishings to bedding warehouse and factory-retail merchants. Purchases were made between October 1985 and February 1986. To obtain the goal of a quota sample which was representative of the three most popular types of mattresses purchased--innerspring, foam and water beds--and to have adequate numbers of the lower sales volume mattress sizes, cases were randomly eliminated, largely from innerspring and queen-sized mattresses purchased, until a sample of 815 cases with complete names and addresses was identified.

Data were collected by a mailed questionnaire the spring of 1986. Two pilot tests were completed, with interim revision of the questionnaire, prior to the mailing to the entire sample. The Dillman procedure for a mailed survey was followed with one modification; the final reminder letter was sent by regular first class mail rather than certified mail. A total of 24 questionnaires were undeliverable, leaving 791 valid questionnaires. Two questionnaires were so incomplete they were not usable. The sample of returned usable questionnaires consisted of 405 respondents, yielding a response rate of 51 percent. For the data analysis, the sample was further reduced to 391, because of missing data or zeros on the dependent variable.

Variable Development

The dependent variable, search time, was the sum of two questionnaire responses. It included time spent in stores looking at mattresses and talking with salespeople, as well as travel time. Also included was non-store time spent looking for and reading information concerning mattresses, and talking with friends, relatives and experts about mattresses.

Independent Variables

The development of a number of the independent variables in the study is quite self explanatory when one examines the contents of Table 1. Only those variables requiring further description will be covered in this section.

The economy conscious shopper measure was developed by factor analysis. Thirty-one questions were analyzed by principle axis factoring with varimax rotation. Four factors were extracted and the factor scores were estimated by the regression method (See Windley and Ackerman 1987). Since only one factor had a linear relationship with search time, that one factor was used in this analysis. That factor was named the economy conscious decision style. Questions which loaded above .40 on the factor revealed that the economy conscious shopper believed in comparison shopping and in taking time to save money and obtain better quality. The economy conscious shopper reported looking carefully for the best value, comparing at least three brands before buying, carefully watching spending, and buying as much as possible on sale. In sum, the economy conscious shopper seeks value for money spent.

Two variables, advertising information and media information, measured respondent evaluations of the usefulness of information. Advertising information summed evaluations of television, radio, magazine and newspaper advertising, as

TABLE 1. Descriptive Statistics on Research Variables

Variables	Continuous Variables Mean	Discrete Variables Percent
Dependent Variable		
Search Time in Minutes	300.880	
Log10 of Search Time in Minutes	2.270	
Independent Variables		
Resources of Respondent		
Information Capital, General		
Age:		
Less Than 25		8.6
25-29		12.5
30-54		64.0
55 and Over		15.1
Educational Levels:		
High School or Less		24.1
Vocational/Technical		11.5
College		55.3
Advanced Degree		9.2
Information Capital, Specific		
No. of Mattresses Purchased	2.533	
No. of Mattress Owned	3.726	
Money Resources: Family Income		
Less Than $20,000		14.3
$20,000 - $29,000		22.0
$30,000 - $39,000		27.3
$40,000 - $49,000		18.7
$50,000 and over		17.6
Time Resource: Emp. Status		
Employed		70.6
Not Employed		29.4
Information Variables		
Pre-Purchase Information		
Advertising Info. Evaluation		
Not Useful		27.1
Moderately Useful		52.7
Very Useful		20.2
Media Info. Evaluation		
Not Useful		34.5
Moderately Useful		45.5
Very Useful		19.9

TABLE 1. Descriptive Statistics on Research Variables Continued

Variables	Continuous Variables Mean	Discrete Variables Percent
Store Quality & Service Reputation		
Slightly Important		11.8
Moderately Important		16.9
Very Important		71.4
Store Low/Competitive Price Reputation		
Not to Moderately Important		32.0
Very Important		68.0
Point-of-Purchase Information		
Salespeople's Knowledge		
Not Important		16.1
Moderately Important		83.9
Label Sign and Price Information		
Not to Slightly Important		23.3
Moderately Important		45.8
Very Important		30.9
Read the Warranty		
Yes		64.4
No		35.5
Mattress Model Explained		
Yes		86.5
No		13.6
Attitude & Behavior Variables		
No. of Stores Shopped	2.188	
Economy Conscious Style	.014	
Who Made Purchase Decision		
Self		31.5
Self and Spouse		57.1
Self and Someone Else		11.5
Purchase Price		
Less Than $300		38.8
$300 - $399		20.7
$400 - $599		19.9
$600 or more		20.5
Type of Mattress Purchased		
Water		15.1
Innerspring		79.0
Foam		5.9
Who Uses the Product		
Self		16.9
Self and Another Person		51.7
Other Person(s)		31.5
Other Variables		
Gender		
Male		43.7
Female		56.3

well as mail order catalogs. Media information summed evaluations of newspaper articles, magazine articles, books, and educational programs on radio and television.

Four variables measured the respondent's opinions of the importance of the store and of salesperson characteristics. Store reputation for quality and service summed opinions about the store's reputation for selling high quality products and its reputation for providing very good customer service regarding delivery, consumer credit, and prompt and courteous handling of consumer problems and complaints. Label sign and price information summed opinions regarding the importance of price tags on all or most items, label or sign information about product materials on or near the product, and the presence of national brand merchandise. The low/competitive price store measure was the response to one item which is self-descriptive. The salesperson's knowledge was also a single question regarding the importance of the salesperson's knowledge about products sold.

Data Analysis

During preliminary analysis, it was determined that the dependent variable, search time, did not yield a linear model. It was highly skewed to the right (skewness = 4.48) and had a large percentage of the responses clustered at the mean

TABLE 2. Multiple Regression of Predictors of Search Time for Mattress Purchase

Predictor Variables	Beta Co-eff.	T-Score	Probability of T-Score
Resources of Respondent			
Information Capital			
Age[1]			
25-29	.165	2.863	.004**
30-54	.120	1.739	.083
55 and over	.041	.671	.503
Educational Level[1]			
Vocational/Technical	.025	.545	.586
College	-.043	-.913	.362
Advanced Degree	.072	1.818	.070
Information: Use and Evaluation			
Pre-Purchase Information			
Advertising Info. Evaluation[1]			
Moderately Useful	-.107	-2.137	.033*
Very Useful	-.072	-1.403	.162
Media Info. Evaluation[1]			
Moderately Useful	.075	1.580	.115
Very Useful	.080	1.645	.101
Store Quality & Service Reputation			
Moderately Important	-.104	-1.816	.070
Very Important	-.100	-1.688	.092
Point-of-Purchase Information			
Point-of-Purchase Info. Evaluation[1]			
Moderately Important	.147	2.883	.004**
Very Important	.060	1.117	.265
Read the Warranty[1]	.114	2.818	.005**
Mattress Model Explained[1]	.071	1.749	.081
Attitudes & Behavior			
Number of Stores Shopped	.489	11.350	.000***
Economy Conscious Decision Style	.149	3.572	.000***
Purchase Price[1]			
$300 - $399	.097	2.336	.020*
$400 - $599	.096	2.243	.026*
$600 or more	.090	2.107	.036*
Equation F-ratio (probability)		14.588	(.000)
Degrees of Freedom 22 & 368			
Equation R-square		.454	

[1]Omitted category of predictor variables are age: under 25; education: high school or less; advertising information: not useful; media information: not useful; store reputation: not important; point of purchase information: not important, did not read warranty; mattress model not explained; mattress purchase price: less than $300.

*Probability of the T-score $\leq$ .05
**Probability of the T-score $\leq$ .01
***Probability of the T-score $\leq$ .001

(kurtosis = 26.67). Since this violated the regression model assumption that the dependent variable is normally distributed, the Log10 form of the variable was used. The transformed search time variable had a slight left skewness (-0.25) and a reduced number of responses clustered at the mean (kurtosis = 0.85). The log transformed search time fit a linear model much more closely than did the untransformed variable.

Preliminary analysis of the independent variables identified a number of instances of moderate to high correlation among pairs of independent variables. These high correlations led to the deletion of some variables from the study. Examples are the deletion of the number of mattresses owned because of correlation with number of mattresses purchased, and the deletion of marital status because of correlation with who made the purchase decision.

Examination of the results of one-way analysis of variance and of preliminary regression equations led to the deletion of a number of variables which were not significant at the .05 level. Following these steps, a final multiple regression equation, was computed with simultaneous entry of predictor variables. Data were analyzed using the SPSSx statistical package.

Findings

The final multiple regression equation included those predictor variables where at least one category of the discrete variable was found significant at or below the .05 level of probability in the preliminary analysis. The R-square of the final equation indicated that 45.9 percent of the variance in search time was explained. Several predictors from each of the three variable sets--resources, information, and attitudes and behavior--were significant at the .05 level of probability.

Among resource variables, one measure of general information capital, age, was significant, and a second measure, education, approached significance. Those in the 25 to 29 age group were the only age group which was significantly different from respondents who were less than age 25. The 25 to 29 age group probably differs from the youngest age group in that the under age 25 group are less likely to be furnishing their first family residence.

Among education level categories, only those at the advanced degree level approached significance (p. = .070) for search time. Their advanced degrees may be indicative of placing a high value on information in general, whether it be career education or consumer information for effective purchase decisions. Higher education is also related to increased information processing skills. Therefore, the ability to handle more information effectively may motivate greater search to acquire more information.

The second set of predictor variables measured information use and evaluation. The respondent's evaluation of the usefulness of advertising was negatively related to search time. Those who felt advertising was moderately useful spent the smallest amount of time on information search. Respondents who placed a moderate level of importance on point-of-purchase information, in the form of prices on products and label and sign information, spent more time on information search. Those who reported reading the mattress warranty spent more time in search. Perhaps they were more careful shoppers.

Among the consumer attitude and behavior measures--the third set of variables--were several of the most important predictors of search time. The strongest predictor of search time was the number of stores shopped. As the number of stores shopped increased, search time increased. The second best predictor of search time was the respondent's score on the economy conscious decision style variable. The positive relationship indicates that shoppers who seek value for money did spend more time searching for information prior to purchasing the household durable good studied here.

Another behavioral factor, purchase price, was found to be significant in this study. All three price categories, when compared with the omitted price category, under $300, were significant at or below the .04 level. This indicates that those paying more than $300 for a mattress spent more time on information search.

Discussion

One or more predictors from each of the three sets--resources, information, and attitudes and behavior--were significant predictors of search time for a household durable good.

The ability of the variable, number of stores shopped, to predict search time was a very logical finding. Shopping more stores involves travel time as well as time in the store. A consumer could shop more stores while spending less time per store, thereby not increasing total search time. However, that did not occur in this study. There was a positive relationship between number of stores shopped and total search time. Results of this study are consistent with previous studies. Bucklin (1966) found that, as the price of the product being purchased increased, the number of stores shopped increased. Since this study deals with a higher priced consumer household durable (mean price paid was slightly below $400) one might expect that more time would be allocated to information search. Newman & Staelin (1971) also found greater information search--corollary of shopping more stores--was a predictor of increased buyer decision time.

An economy conscious decision style was the second best predictor of search time. The economy conscious shopper uses the strategies of looking carefully to find the best value, buying things on sale whenever possible, and comparing

several brands before making a purchase. They believe that comparing prices and quality are important and that they will make better buys and save money if more time is taken to shop. Based on the findings, it appears that shoppers who fit the economy conscious shopper's profile will definitely spend more time on information search prior to making a purchase.

Dickenson (1982) discussed a consumer strategy of purchasing the highest value of the lowest price, very much like the economy conscious decision style measure used in this study. He stated this group should be very different from that generally reflected in the consumer behavior literature. He suggested that such a purchasing system means the search process would be continuous and would focus on expanding the number of alternatives, complicating aspects such as the time value of money and opportunity costs would be introduced, and a key to success of such a purchasing system would be the consumer's increased perception of psychological rewards from the work of consumption--that is, the consumer must enjoy shopping more than alternative activities. Unfortunately, Dickenson did not test these propositions.

Price paid was found to be significant in this study, as it has been in previous studies. All three mattress price categories, when compared with the lowest priced mattresses (under $300), were significant at or below the .04 level of probability. When the price paid was over $300, search time increased. Again, the results found here are consistent with previous studies. Katona and Mueller found that consumers spent more time to search for items that were higher priced (1955). Bucklin (1966) found that 64 percent of those shopping for a product priced at $100 or more shopped two or more stores; product price was positively related to number of stores shopped. Newman and Staelin (1971) found that decision time increased as the price of an appliance increased, although the relationship of decision time to price paid for a car was unimodal, peaking at the medium price level.

The relationship between one's opinion regarding the usefulness of advertising and search time was inverse. Those in the omitted category, who found advertising information not at all useful, spent more time shopping than did those who found advertising to be moderately useful. Perhaps those who found advertising information moderately useful were able to use information from advertisements as a partial substitute for additional information search. Further evidence of this was found in a study by Thorelli, et al. They found that information seekers were more critical of advertising, but used advertising more in making purchase decisions than did average consumers (1975).

Frequently, authors have developed a rationale for the proposition that younger aged shoppers either can or should spend more time shopping. Younger shoppers have less shopping experience, and have had less time to develop general and product specific shopping skills. They are likely to have less income and therefore feel a need to be more careful in spending that income. However, this study divided younger shoppers into two categories, the omitted category was shoppers under twenty-five years of age and the significant category was respondents aged 25 to 29. The 25 to 29 year old respondents spent more time in information search than did their younger counterparts. Other analysis of these data reveal that those 25 to 29 years old are more frequently married, more frequently parents, and are more likely to be home owners than are the under 25 year old age group. Since they are more frequently establishing or expanding households, they may have greater constraints on income. The fact that those 30 and over were not significantly different than those under 25 means that their search time for a mattress purchase was similar to that of shoppers under the age of 25. Therefore, it appears the greater market experience and, perhaps, previous purchase of the product did not result in lower search time for the current purchase. This may indicate that those age 30 and older are upgrading to better quality mattresses, thus, previous search experience was less helpful in evaluating current purchase. Other studies have found search time to be inversely related to age, although not significant (Goldman and Johansson (1978), and to be related to the family life cycle stage of age 45 or older and without children (Newman and Staelin (1971). Among households where the head was under the age of 45, those who were also unmarried or married with no children reported shorter decision times than those married with children (Newman & Staelin, 1971). Again, budget constraints may motivate greater search time.

The fact that reading warranties predicts search time may be indicative of more than an interest in warranties. It does not take much time to read a warranty. They are often conspicuously attached to the mattress and are quite brief. The consumer who read the warranty may also have inspected the mattress more closely, read other signs and labels, spent more time quizzing the salesperson about mattresses, and selected stores which were more information, quality, and customer service oriented. The fact that the predictor, mattress model explained, approached significance (p. = .065) provides some support for this possible broader interpretation of the warranty reader predictor variable.

Point-of-purchase information summed attitudes about the importance of price labels, label and sign information about the product and the presence of national brands. While the warranty variable measured point of purchase behavior, this variable reflects an opinion about point of purchase information. Therefore, both measures of beliefs and of usage of point of purchase information were significant predictors of search time.

Implications

The study findings have implications for consumer educators, consumers and for future research.

Consumer educators might apply the results in identifying target audiences for educational programs. The fact that purchases in the age 25-29 group allocated the most time to

information search would indicate they are a potentially receptive audience for product purchase information. The fact that this age group is also likely to be married, starting a family, and establishing a household suggests that financial resources are limited and price is an important consideration in their purchase strategy.

While price is likely to be important to the 25 to 29 age group, the educator cannot overlook targeting educational materials to those who pay higher prices for a household durable good. As price increased, the search for information also increased.

Consumer educators might also consider the types of information used and consumer attitudes toward information. The fact that consumers who find advertising useful devote less time to search suggests developing materials to assist consumers in better understanding and evaluating the contents of advertising. The significance of point of purchase information suggests developing educational materials to assist consumers in evaluating warranty contents and comparative pricing information as well as to make consumers aware of what information is legally required at the point of purchase.

Consumers themselves can also gain insight from these results. Those who decide to shop a greater number of stores or to use an economy oriented decision style can anticipate the need to allocate more time to information search before making a purchase. Shoppers who felt point of purchase information was important or read warranties or inspected models also spent more time shopping. To generalize, greater reliance on point-of- purchase information increased search time; while favorable attitudes toward advertising and store reputation, while not usually significant, decreased search time. The lesson for those consumers who wish to spend less time shopping would appear to be a change in information sources from point-of-purchase to prepurchase sources. However, this difference in prepurchase and point-of- purchase information might be due to another source, measurement error. Self reports of search time may possibly be more accurate for point-of-purchase search time than for prepurchase search time. Time diaries may need to be used instead of after the fact self reports before this possible measurement limitation is supported or refuted.

Future research might profitably look further at the difference in search time identified for the under 25 and 25-29 age groups. Perhaps a family life cycle variable would be more helpful than age, because of the differences in marital status, home ownership and children noted here. Also an income/needs ratio, which considers the number and age of family members might be more useful than family income as a predictor of search because it more accurately reflects financial constraints of the household.

The importance of the economy conscious decision style in this study suggests that further study of search objectives (value for money, high quality, fashion-novelty, etc.) and decision styles may be a fruitful area of research. Only the economy conscious decision style could be appropriately included in the research design used here. Other types of analysis will need to be explored if other decision styles are to be related to time allocated to information search.

In sum, the results show that search time is related to a number of measures of attitudes and behavior, to information use and evaluation, and to the human resource, information capital. The results provide insight for consumers, suggest potential target audiences for educational materials and open additional avenues for future research.

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FAMILY DEBT MANAGEMENT IN BANKRUPTCY

Barbara Bartelme, Arizona State University[1]
Georgianne Baker, Arizona State University[2]

Abstract

A management framework was used to study family debt repayment in Chapter 13 Bankruptcy. One hundred 1982-83 petitions in Phoenix, Arizona were analyzed in three groups; dismissed (unsuccessful), pending (still paying), and completed (successful); for significant mean differences on demographic, financial, management, and outcome factors. Hypothesized differences were supported for financial, management and outcome factors, but not demographic factors. Results indicated that management factors were important to successful completion. Conclusions were that unsuccessful families had heavy demands and were unrealistic in planning to repay debt. Successful families adjusted goals and standards resulting in greater returns to the economic system.

Introduction

The use of credit is a way of life in the United States and requires family management of finances to cope with rising levels of consumer debt (Steinberg, 1981). Along with greater credit use, bankruptcy rates have steadily increased and reached alarming rates since enactment of the Bankruptcy Reform Act of 1978 (BRA). Losses to creditors through bankruptcy, estimated at over $6 billion dollars annually, affect all families (U. S. Administrative Office of the Courts, 1982, 1983, 1984). Dolphin (1965) while studying bankrupts many years ago, stated that families in bankruptcy represent just a tip of the iceberg of those having debt problems. Chapter 13 is designed to minimize bankruptcy losses through a plan with the court (Connors, 1980; Epstein, 1980; Lee, 1979).

Professionals concerned with family financial well-being provide advice or assistance in managing debt. Planning and budgeting income are considered fundamental to financial management (Lown, 1986), yet research indicates few families follow a plan and little is know of plans that work (Lown, 1986; Mullis & Schnittgrund, 1982; Schnittgrund & Baker, 1983). Families who successfully manage to repay debts through a plan with the court may provide important information for professionals working with family debt problems.

The purpose of this study is twofold; to explore the similarities and differences between families in Chapter 13 who were successful in a plan of debt repayment compared to those who were unsuccessful and to determine the importance of management factors in a debt repayment plan. This paper is a review of the descriptive data related to management of debt. The findings of multiple regression analysis are reported elsewhere.

[1]Associate Faculty
[2]Assistant Professor

Review of Literature

History and Process of Bankruptcy

The Bankruptcy Act of 1898 granted equitable treatment to creditors and the right of a new start to debtors in personal bankruptcy (Warren, 1935). The Act remained in effect until the Bankruptcy Reform Act of 1978 was passed. The power of the law was the immediate stop of legal action against the debtor and a discharge from debt (i.e., write-off). Chapter VII of the Act (later amended to Chapter 7) provided for a liquidation of the debtor's non-exempt assets. Exempt assets varied widely under state law. The Chandler Act of 1938 added Chapter XIII wage earner plans (later amended to Chapter 13), allowing repayment of debts (Epstein, 1980).

The major provisions of the Bankruptcy Reform Act of 1978 (BRA) were to establish uniform federal exemptions, to revise rules governing judges and the courts, to allow married petitioners to file joint claims, and to broaden the use of Chapter 13 (Connors, 1980). Chapter 13 is voluntary and allows repayment of delinquent debts while being somewhat flexible in the level and length of debt repayment (Epstein, 1980; Lee, 1979). Chapter 13 petitions include data on family members, income, assets and debts. A plan must be approved by the court at a hearing after all creditors have been contacted and allowed to file claims against the debtor (Epstein, 1980). After approval of the plan, debtors make payments to the court through a trustee, usually for about three years. A case may be dismissed from the court for failure to make payments or voluntarily. When the proposed plan is completed, the debtor receives a discharge granting that any remaining debt is no longer owed (Epstein, 1980).

Bankruptcy Study

Bankruptcy study prior to the BRA combined liquidation and wage earner plans (Chapter VII and XIII) together because of the small percentage of states using Chapter XIII provisions--95% of cases were filed in five states, (Stanley & Girth, 1972). Evidence described the average debtor filing bankruptcy as a blue collar worker with a high school education and a larger than average size family in his middle thirties (Dolphin, 1965; Heck, 1980; Herrmann, 1966; Stanley & Girth, 1972). Typically, wives did not work in the market place. Employment characteristics showed that the debtor was often earning less than the average in his occupation and had changed jobs fairly recently (Dolphin, 1965; Herrmann, 1966). Characteristics of debts were a high ratio of debts to income with a large number of debts (over 10). Sources of debts were often finance companies or other institutions in the business of lending money (Stanley & Girth, 1972). Debtors seldom owned their own home. Legal suit or

threats of legal action had often prompted bankruptcy filing (Dolphin, 1965).

Studies of debt repayment in Chapter 13 after the BRA described the average debtor as similar to prior bankruptcy study. Differences were an increase of white collar occupations, mostly in sales and service jobs; with average incomes (U. S. General Account Office [GAO], 1983). Debt characteristics indicated higher ratios of debts to income and a heavy reliance on credit with large numbers of debts. After the BRA, about half of debtors under Chapter 13 owned their homes (GAS, 1983).

Factors Affecting Outcomes

The Brookings Institute in 1972 (Stanley & Girth, 1972) reported about half of repayment plans were successful and resulted in repayment of about 95 percent of scheduled debts. This was considerably higher payment than the distribution of funds in a liquidation bankruptcy, where creditors often received nothing on unsecured debts (e.g., credit cards or retail services).

A study of repayment plans in Tennessee by Hoskin (1976) over a five year period with a counseling intervention reported that about 80 percent of debtors repaid about 60 percent of their debts. Environmental factors such as employment and family characteristics were significant in predicting outcomes.

Evidence from an accounting firm at Senate Hearings in 1981 (U. S. Congress, Senate, 1981) indicated that monthly payment amounts in a plan could be an important characteristic in successful outcome. The records indicated that for over 15,000 cases during a twenty year period, successful cases of debtors who completed their plan with the court, had payments of $10-$15 per week less than unsuccessful cases of debtors who dropped out and were dismissed from the court.

Sullivan and Drecnik (1984) in a study of liquidation, while comparing Chapter 7 and 13 cases, reported that mean debt repayment for Chapter 13 petitions was 15.6 percent of income. About one-fourth of cases studied had debt repayment of over 20 percent of income. It was expected that these Chapter 13 cases would be unsuccessful or cause a hardship to families to complete (Sullivan & Drecnik, 1984).

The General Accounting Office (1983), under direction of Congress, completed a study of bankruptcy in 1983. The GAO (1983) reported that Chapter 13 plans would be expected to repay about 60 percent of unsecured debt, such as credit cards, over a three year period. The GAO (1983) projected that with broadening of the Chapter 13 provisions the percentage of debt repayment would probably be less.

There is evidence in the literature on Chapter 13 of much available data in the petitions filed and many factors affecting successful outcome. There have been no studies of successful completion since the BRA, or of differences between those who manage successfully and those who do not. There have been some projections of how families will succeed (GAO, 1983). Analysis of these data may be of help to professionals in education, research, and counseling.

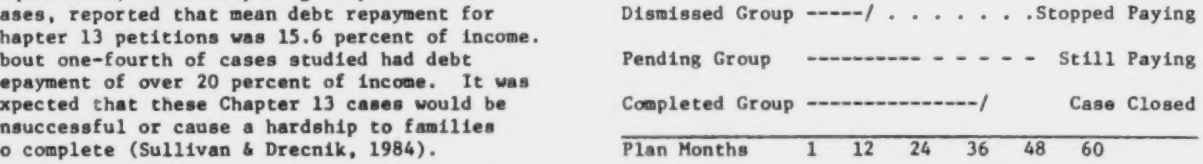
Model

A model of families in bankruptcy was developed from concepts of Deacon and Firebaugh (1981) for this study. System concepts are a)inputs-the demands and resources the family has available for use, b)throughputs-the process of management that transforms demands and resources for family use, and c)outputs-the met demands and used resources that leave the system and provide feedback to the near and far environment. Specific to the bankruptcy model of this study, demographic and financial factors are the inputs of families which form a set of conditions at the time of filing. Measures of family, income, asset and debt characteristics were operationalized as input factors. Management factors are the throughputs of financial management, and are represented by the plan for repayment and budget allocations. Outcome factors are the measures of the dollars paid by the family through the legal system to the economic system. Outputs may be measured in relation to the family, legal, and economic system.

It was determined from the review of literature and the court data that cases would be open or "pending" with the court until finished with repayment. Families who failed to make payments would be dismissed from the court. Other families would complete their plan. Thus, there are three groups for analysis in the study: the dismissed group (unsuccessful cases), the pending group (cases still paying), and the completed group (successfully completed cases). Figure 1 below describes the study groups.

Figure 1

Model of Study Groups



Hypotheses tested were for significant differences among the means of the groups on demographic, financial, management, or outcome factors. Figure 2 below describes the theoretical and research definitions for these measures that were developed (Bartelme & Baker, 1987).

Methodology

Data for this study were obtained from a simple random sample of 100 cases accepted by the court during 1982-1983 under Chapter 13 of the Bankruptcy Reform Act from a total universe of 735 petitions on file with the Clerk of the Federal Bankruptcy Court in Phoenix. The research design is an analysis of bankruptcy records with descriptive objective data collected from the

petitions. Data collection was accomplished with a computer coded instrument devised for the Four State Bankruptcy Study (Baker et al, 1983). Analysis was performed on the IBM 3081 with an SPSSx nested file system. A t-test of group means and standard deviations was used to test the hypotheses for this study. The groups of research definitions are described below in Figure 2.

Figure 2

Theoretical and Research Definitions

Theoretical	Research
Inputs	
Demographic Factors	
	Family Characteristics
	Income Characteristics
Financial Factors	
	Asset Characteristics
	Debt Characteristics
	Economic Characteristics
Throughputs	
Management Factors	
	Plan Characteristics
	Budget Characteristics
Outputs	
Outcome Factors	
	Payback Characteristics

Description of the Sample

Input Factors. The study sample of 100 bankruptcy petitions included 92 males, 81 females, 132 children and 9 other adults present in households. About two-thirds of cases (63%) were families with children with the remainder of single persons (17%) and couples (20%). This resulted in a mean family size of 3.14. Children ranged in age from 1 to 22. Family stage indicated average families in the elementary age years of 6-10 with a group mean for the oldest child of 7 years.

Analysis of income characteristics revealed about half of males (48%) were in skilled work, one-fourth were in professional and managerial work, with the remainder in unskilled, sales or services, or retired. One-third (35%) of the women in the study did not work for pay. About one-fourth of women worked in clerical or office positions, ten percent worked in professional occupations, seventeen percent were in skilled labor, and the remainder were in unskilled or sales or service jobs. When the bankruptcy petitions were filed, the men had worked longer at their present jobs, 4.69 years compared to a mean of 1.59 years for women. The average income for males was about $17,000 compared to an average of $3,700 for women. The monthly net pay of families was an average of $1,572.

The financial factors of assets and debts indicated an average of $826 exempt assets in autos and $3,225 in personal property claimed. Over half of families owned their own home with an average value of $37,825. There were a total of 1,102 known debts among the families with 83.6 percent under the plan and 16.4 percent of debts outside the plan (primarily owed to attorneys and on mortgages). The average debt owed per case was $12,432 in the plan and represented a sum of 1.2 million dollars owed to creditors. Debts owed were more than twice assets for the sample. This resulted in a mean net worth of -$3,157 for the study.

Management Factors. Plans represented 31 single petitions and 69 joint (couple) petitions. The mean length of plans was 41.5 months with a median length of 36 months. The average amount planned to be repaid was $213 monthly, with a family repayment goal of $7,560. This sum reflected a standard of 72 percent debt repayment for the sample.

Outcome Factors. The mean of the planned debt repayment accomplished by the family was 66 percent. The mean of debts returned to creditors was $4,450. This was 46.2% of debts owed in the plans.

Results and Discussion

Demographic Factors

Results of the analyses of demographic factors indicated that these families were more alike than different. See Table 2 for a description of the means and significant differences among the study groups.

Findings indicated the highest mean for all measures of family characteristics in the dismissed group and the lowest means in the completed group (i.e., completed families were younger and smaller). However, there were no significant differences among the groups for age, size, or composition of families.

Income characteristics were analyzed by individuals and households for source of income, taxable annual income and per capita income, and monthly net pay. Total household income was not significantly different among the dismissed and completed group, but was significantly higher for the pending group ($1,685) compared to the completed group ($1,392). This finding indicated that family income levels were not a critical factor in case dismissal. This finding was contrary to the findings of Hoskin (1976) who reported that employment and family characteristics were significant in predicting outcomes. The difference may be that the objective data didn't reflect changes that occurred and were reported in a longitudinal study with counseling interventions.

There was significantly less women's income and other current income in the dismissed group. The lower amounts of women's income and other current income in the dismissed group indicated greater demands on husbands to provide earnings in the dismissed group.

The demographic factors of the sample were similar to both pre and post-BRA research in bankruptcy with large families predominating with children in the middle years. Many wives were not employed or had recently started working for pay outside the home. Most husbands worked in blue

collar or sales and service work (Dolphin, 1965; Heck, 1980; Herrmann, 1966; Stanley & Girth, 1972).

Financial Factors

The analysis of financial factors showed a significant difference of more secured debt in the dismissed group ($3,686) compared to the completed group ($1,493), but no significant difference in total household debt. (See Table 2). Debt analysis indicated more debts owed to medical doctors, utilities, and personal loans in the plans of the dismissed group compared to more debts outside the plan for attorneys fees, mortgage payments, or other secured debt in the completed group.

Comparing assets and debts of the dismissed and completed groups showed that the completed group had slightly more assets and about $5,000 additional debt compared to the dismissed group. The amount of assets or debts did not appear to be a critical factor in outcome for the dismissed or completed group. The findings of the sample for debts were similar to prior studies (Dolphin, 1965; Heck, 1980; Herrmann, 1966; Stanley & Girth, 1972) indicating a large number of debts with a high ratio of debt to income and low or negative net worth.

Dismissed families had problems prior to bankruptcy in meeting basic living expenses, such as utilities, and had used resources of borrowing from family members to cope with debt problems. They also had heavy demands upon family members in coping with medical problems. Families in the completed group with more debt outside the plan may have indicated fewer management problems prior to filing than the dismissed group and/or a greater willingness of creditors to work with them in repaying debts to the court.

The pending group differed from both the dismissed and completed group in financial factors. They had significantly greater debts ($15,500) and assets of personal property (4,820). The pending group had significantly more debts in five comparisons by debt source (i.e., financial institutions, personal finance companies, and attorneys; as well as two categories associated with self-employment; taxes and small business debt). (See Table 2.)

To summarize input factors, comparing families in the dismissed and completed groups determined that they were not significantly different on measures of family characteristics or household income, assets or total debts. There were significant differences in measures of portions of income for women and debt that was secured between the two groups. The pending group was not significantly different in family characteristics, but did have significant differences in household monthly pay, assets and debts, measuring higher in all three categories.

Management Factors

Analysis of management factors indicated that the dismissed group planned to pay more for a longer period of time compared to the completed group. (See Table 1 below for the means of plan characteristics.) The completed group planned to pay an average of $130 per month for three years resulting in a goal of repayment of $3,768. The dismissed and pending groups planned to pay 2-3 times the amount of the completed group. The mean standard of debt repayment was 70 percent for the pending and completed groups and 78 percent for the dismissed group.

Table 1

Means of Plan Characteristics for Study Groups

Plan Characteristic	Dismissed N=21 Mean	Pending N=51 Mean	Completed N=28 Mean
Plan Length[a]	43 mos.	44 mos.	36 mos.
Debt Repay (Mo.)[ab]	$ 218	$ 229	$ 130
Family Plan Goal[ab]	$7,785	$9,475	$3,768
Repay Standard	78 %	70 %	70 %
Future Debt:Assets[ab]	2.40:1	1.88:1	.89:1
Future Debt:Income[ab]	.48:1	.48:1	.21:1
Future Net Worth[b]	$6,086	$4,614	$5,904

[a]Indicates significance of P .05 or greater between dismissed and completed groups.

[b]Indicates significance of P .05 or greater between pending and completed groups.

The completed group had significantly lower future ratios of debts to assets and income after approval of their plan. This would result in a positive change in the completed group of debts to assets (.89:1) and debts to income (.21:1). Net worth would increase more in the completed group than the dismissed group.

Analysis of budget characteristics indicated that the percent of housing expense was not significantly different among the study groups and averaged 27 to 30 percent of family pay, but the amount for shelter was significantly greater in the pending group ($501) compared to the completed group ($403) and may have been related to a greater monthly amount for second mortgages. (See Table 2.) Living expense (not including shelter costs) averaged 52 to 57 percent of monthly family pay. The level of debt repayment in budgets was the most significant difference among the study groups, ranging from 9 percent in the completed group, to 14 percent in the pending group, and 18 percent in the dismissed group.

The finding of greater monthly payments from families in the dismissed group compared to the completed group is consistent with the Senate (1981) testimony where it was noted that families who were unsuccessful attempted to pay $10-15 per week more to the court. The pending group planned

Table 2

Summary of Means and Significant T-tests of Demographic, Financial, Management and Outcome Factors among the Groups of Dismissed, Pending and Completed Chapter 13 Cases

Variable (in Dollars)[a]	Mean Dismissed n=21	Pending n=51	Completed n=28	T-Value	df
Dismissed and Completed					
Demographic Factors					
Current Pay of Women	120		303	-1.83*	43
Other Current Income	8		73	-1.76*	28
Taxable Income of Women	2,208		4,612	-1.67*	47
Financial Factors					
Total Secured Debt	3,686		1,493	1.66*	25
Management Factors					
New Debt/Income Ratio	.48		.21	3.48***	27
Percent Monthly Repayment	18		9	3.03***	27
Family Dollar Goal	7,785		3,768	2.91***	46
Length of Plan (Months)	43		36	2.35**	46
New Debt/Asset Ratio	2.40		.89	2.17**	23
Monthly Repay Amount	282		130	2.06**	24
Outcome Factors					
Percent of Plan Complete	18		96	-14.28****	33
Percent of Total Debts Repaid	15		67	6.32****	44
Repay of Unsecured Debts	354		1,981	-3.65****	32
Total Dollars Repaid	1,343		3,938	-2.86***	36
Dismissed and Pending					
Demographic Factors					
Other Current Income	8	86		-2.66***	53
Current Pay of Women	120	349		-2.06**	64
Financial Factors					
Total Unsecured Debt	5,804	11,611		-3.52****	70
Total Debts in Plan	10,456	15,566		-2.55**	60
Small Business Debt	-0-	1,879		-2.01**	50
Auto Finance Debt	506	1,582		-1.93*	65
Personal Property	3,298	4,820		-1.89*	70
Household Property	2,617	3,888		-1.69*	70
Outcome Factors (ESTIMATED FOR COMPARISON ONLY)					
Percent of Plan Complete	18	70		-9.64****	31
Total Dollars Repaid	1,343	6,042		6.40****	68
Percent of Total Debts Repaid	15	48		-5.54****	48
Pending and Completed					
Demographic Factors					
Current Family Pay		1,685	1,392	-2.56***	74
Total Debts in Plan		15,566	8,206	3.12****	77
Total Unsecured Debt		11,611	5,690	2.81***	77
Financial Factors					
Personal Property		4,820	3,213	2.70***	76
Household Property		3,888	2,471	2.57**	77
Financial Institution Debt		5,262	2,964	2.04**	77
Debt/Asset Ratio		3.3	1.9	1.88*	75
Tax Debt		1,401	266	-1.80*	58
Attorney Fees		604	475	-1.78*	70
Management Factors					
New Debt/Income Ratio		.48	.21	4.21****	71
Family Dollar Goal		9,475	3,768	4.21****	75
Length of Plan (Months)		44	36	2.98****	75
Monthly Repay Amount		229	130	2.98***	72
New Debt/Asset Ratio		1.88	.89	2.86***	74
Percent Monthly Repayment		14	9	2.66***	72
Second Mortgage (Monthly $)		77	23	2.11**	75
Shelter Expense (Monthly $)		501	403	1.94*	76
Outcome Factors (ESTIMATED FOR COMPARISON ONLY)					
Percent of Plan Complete		70	96	-6.91****	75
Percent of Total Debts Repaid		48	67	-2.66****	76
Total Dollar Repayment		6,042	3,938	1.99*	27

* p<.1
** p<.05
*** p<.01
**** p<.001

[a] All data are expressed in dollars unless otherwise stated.

to repay at least 60 percent of unsecured debt and this is consistent with the findings of the GAO (1983) study and by earlier study in Chapter 13 (Stanley & Girth, 1972).

Outcome Factors

The completed group accomplished almost all of planned debt repayment (96%) compared to the dismissed group, who repaid 18 percent of their plan. The amount of money returned to creditors in plans indicated that families who were successful repaid about two-thirds (67%) of total debts. Families who were unsuccessful repaid about 15 percent. (Summary is located in Table 2). All of the pending group were estimated to have completed at least one-third of plans, with about half less than two-thirds complete, and the remaining half more than two-thirds complete. It was projected that families in the pending group would repay about 70 percent of debt in their plan if they were successful. The average amount repaid by families in the dismissed group was $1,343 compared to $3,938 by the completed group. These amounts repaid represented about one-half million dollars returned by families to the economic system through Chapter 13 plans in this study.

These findings were similar to earlier study in bankruptcy (Stanley & Girth, 1972) that found families successful in completing a plan would repay about 95 percent of scheduled (planned) debt. Creditors received substantial returns of two-thirds of total debts owed from successful families. Unsuccessful families did make some contributions to creditors with about 15 percent of total debts repaid. It would appear that even though they didn't complete their plans, these families might have repaid some funds that would not otherwise have been paid in a liquidation bankruptcy proceeding.

Conclusions

Families who were unsuccessful in the dismissed group had heavy demands in the family with husbands as sole wage earners and some evidence of prior medical problems. There also was some indication of more financial management problems with basic living expenses, such as utility debts and the use of family and friends as a resource for personal loans. Families in the dismissed group planned to repay the highest percent of total debt (planning the highest standard of total debt repayment) and elected difficult budget constraints of the highest monthly debt repayment. This evidence led to the conclusion that unsuccessful families were somewhat unrealistic in setting goals for a plan of debt repayment.

Families who were still paying their debts to the court had evidence of extremely high debt loads, but had more income, more wives working, and the most assets accumulated. There were also indications of prior business ownership with more small business debts and taxes owed. The plans of these families did not differ significantly from those of unsuccessful families, but did differ from completed families with longer repayment lengths and goals of repayment. It was concluded that dual incomes and an adjustment of debt payments over a longer period of time were effective strategies for management in these families who are currently successful in their plans.

Successful families of the completed group were similar to other families but had some indication of being smaller and younger with less demands and prior management problems than unsuccessful families. Successful families had less debt in the plan with lower percentages of monthly debt repayment and lower standards of amounts to be repaid, however, they did not have significantly less total debt than unsuccessful families and actually indicated about $5,000 additional debt including mortgage debt. Successful families completed substantial payments of debt to the court resulting in a return to creditors of two-thirds of debt. This led to the conclusion that successful families were able to adjust standards and goals for effective management resulting in greater feedback to the family, legal and economic system.

Implications

The findings of this study imply that Chapter 13 is an important resource of families in financial crisis and use of Chapter 13 may increase as families become more aware of the advantages. Implications for the legal system are that families will complete successful plans under the broader provisions of the BRA returning substantial amounts to creditors, however the amounts may be less than prior to the change in the law. Implications for creditors are that losses from bankruptcy may be minimized from use of Chapter 13 with realistic levels of debt repayment, but successful plans will still include substantial write-offs of debt and may take lengthy periods for repayment. Finally, the findings that management related factors are important in a plan of repayment stress the important role of education and research in future financial management of families. This study indicates that professionals may assist families in planning and budgeting for more effective management.

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PATTERNS OF FAMILY FINANCIAL MANAGEMENT

Elizabeth P. Davis, University of Nebraska-Lincoln[1]

Abstract

This study reports on two aspects of financial management: a) the extent to which households use the recommended financial management practices in combination with one another and b) the reasons they fail to use the recommended procedures. Respondents who did not use a recommended practice generally reported that they saw no need to do so. About one-third of the respondents were identified as "textbook managers" who made budgets, kept accounts of spending, evaluated spending, and estimated net worth.

In her review of the literature on family financial management, Lown (1986) highlights a basic anomoly: the research findings indicate that people don't appear to be doing what the textbooks, the teachers, and the 'experts' recommend. It appears that people do know what they should be doing; the research indicates that people believe that practices like budgeting, saving, and careful spending are worthwhile (Godwin & Carroll, 1986; Katona, 1960; Mullis & Schnittgrund, 1982; Schnittgrund & Baker, 1983). However, the very people who say they favor the recommended financial management practices will admit they don't follow them, or at least not in the form prescribed by the textbooks (Godwin et al., 1986; Mullis et al., 1982; Schnittgrund et al., 1983).

Why don't people do what they themselves believe they should do? This report will attempt to answer that question. More specifically, this study has three main objectives:

a) to identify factors that constrain or discourage people from using recommended financial practices.

b) to identify the most common patterns or combinations of the recommended practices

c) to determine what factors distinguish people who use the recommended procedures from those who don't.

Previous Research

A written budget is considered to be the most basic tool of financial management (Garman, Eckert, & Forgue, 1985; Gitman & Joehnk, 1987; Lang & Gillespie, 1984). However, the research indicates that only a small minority of households utilize a written budget (Beutler & Sahlberg, 1979; Mullis et al., 1982; Schnittgrund et al., 1983). Rather, it appears that people make much more informal plans for spending their money. For example, Schnittgrund and Baker (1983) found that of the respondents who said they had a budget, the majority reported a "general idea" that guided their spending, rather than a written plan. A budget by itself may be of little use unless the household has records of its spending by which to gauge the implementation of the budget. The literature suggests that people do try to record their spending. For example, Godwin and Carrol (1986) found that 73 percent of the husbands in their sample reported keeping "monthly records of expenditures". However, the forms those records take seem to vary depending on the household's circumstances (Schnittgrund, 1983). Making an annual estimate of net worth is stressed as much or more than budgeting in the textbooks. However, this procedure is not as frequently practiced as budgeting; Mueller and Hira reported that while 32 percent of their respondents prepared a balance sheet, another 35 percent reported that they had never calculated their net worth.

Data and Methods

The data used in this report were collected as part of a broader study designed to investigate the impact of selected financial management practices on the perceived and objective financial well-being of families. Data were collected in 1984 in a Midwestern state using a two-stage cluster sample wherein non-metropolitan counties comprised the sampling frame for the first stage and residential telephone listings within those counties comprised the sampling frame for the second. Data were collected by means of a mail questionnaire. Of the 1200 households sampled, 672 returned usable instruments. The demographic characteristics of the sample are described in detail elsewhere (Davis, 1986). Briefly restated, the majority of the respondents were white, and living in married couple households; the mean age for respondents was 49 years and the median income fell between $20,000 and $25,000 a year.

Findings

Respondents were questioned on four aspects of financial management: budgeting, record keeping, comparing the records to the budget, and preparing a balance sheet. Respondents who used a procedure were asked additional questions regarding the degree of implementation; respondents who did not use a procedure were asked why they didn't, and chose their responses from a list of possible reasons plus a category of "Other: please describe."

Table 1 gives the frequency distributions for the questions regarding budgeting behavior. Over four-fifths of the respondents indicated that they made "some kind of plan for spending" their incomes, but only eight percent described their plan as mainly or completely written. For over half of the budgeters in this study, the plan covered a period of one month or less. The budget spanned a full year for only 16 percent of the respondents.

Among those who did not make budgets, lack of choice regarding spending was the most commonly cited constraint. Lack of time and past failures

[1]Assistant Professor

at implementing a budget were not often cited as reasons for not budgeting.

Table 1. Percentage Distribution of Selected Budgeting Behaviors and Reasons for Not Budgeting

Question and response set	Percent[a]	N
Do you generally make some kind of PLAN before spending your money?		
Yes	82	545
No	18	119
If YES, is this spending plan mental, written, or both?		
completely mental	10	52
mainly mental	29	155
both mental and written	54	289
mainly written	6	32
completely written	2	11
What time period does this spending plan cover?		
a week	8	43
two weeks	11	56
a month	35	184
several months	24	127
a year	16	84
other	7	36
If NO, is it because.....[b]		
no choice about spending	25	43
both income and expenditures unpredictable	18	31
expenses too unpredictable	15	26
no need to plan	14	24
income to unpredictable	8	15
takes too much time	7	12
tried making a plan but couldn't stick to it	4	6
don't know how to plan	1	2
other	7	12

[a]Percentages may not sum to 100 due to rounding
[b]For questions where respondents indicated more than one answer, percentages shown are the percentages of total responses

It appears from the distribution of responses given in Table 2 that the respondents in this study relied heavily on cancelled checks for records of their spending; 89 percent of those who kept written records of spending kept cancelled checks. Two thirds of those who reported keeping records of spending also reported keeping receipts for major purchases and receipts for monthly bills. A little over one-third of the respondents who kept spending records also kept charge slips.

The information in Table 2 also suggests that for the minority of respondents who failed to keep spending records, time knowledge was not a constraining factor. Of the 61 households where no records were kept, almost two-thirds reported that they saw no need to do so.

Table 2. Percent Distribution of Selected Record Keeping Behaviors and Reasons for Not Keeping Records

Question and response set	Percent[a]	N
Do you generally keep written records of what you've spent?		
Yes	91	604
No	9	61
If YES, what kind of records[b] do you keep?		
cancelled checks	32	536
receipts for major purchases	23	397
receipts for monthly bills	23	396
credit card receipts	12	211
receipts for daily or weekly expenses	6	107
account book	1	18
other	2	38
If NO, is it because.....[b]		
don't need to	39	24
can't get other people in the household to keep track of spending	21	13
takes too much time	12	7
don't know how	8	5
can't remember to record spending	3	2
other	16	10

[a]Percentages may not sum to 100 due to rounding
[b]For questions where respondents indicated more than one answer, the percentages shown are percentages of total responses

People may have budgets and keep accounts of their spending, but as Table 3 indicates, comparing the two may be another matter. Just over two-thirds of the respondents said they checked their actual spending against their budget, although 82 percent said they had budgets and 91 percent said they kept records. It appears that for those respondents who did compare, the frequency of comparison corresponded roughly to the time horizon of the budget; 35 percent of the budgeters planned their spending on a monthly basis, while 45 percent of those who compared actual to planned expenditures did so on a monthly basis.

Of the 206 respondents who did not make comparisons, only a small fraction reported lack of time or knowledge as constraints. Almost half the respondents who didn't make comparison said they saw no need to do so.

As shown in Table 4, about half the respondents estimated their net worth, and about half did not. Of those who did, a little less than two-thirds did so on an annual basis. Of the 328 who did not prepare balance sheets, almost half said they had simply "never thought about it" and another 26 percent said they saw no need to prepare one.

Table 3. Percent Distribution of Selected Spending Evaluation Behaviors and Reasons for Not Evaluating Spending

Questions and response set	Percent[a]	N
Every so often, do you compare what you planned to spend to what you actually spent to see if any changes need to be made?		
Yes	69	447
No	31	204
If YES, how often do you do this?		
once a week	7	28
every two weeks	10	41
once a month	45	179
every few months	35	142
other	3	12
If NO, is it because...[b]		
don't need to	45	89
have no plan for spending	30	59
takes too much time	11	22
have no records of spending	3	6
other	11	22

[a]Percentages may not sum to 100 due to rounding
[b]For questions where respondents indicated more than one answer, percentages shown are percentages of total responses.

Table 4. Percentage of Respondents Estimating Net Worth and Percentage Distribution of Reasons Not to Estimate Net Worth

Question and response set	Percent[a]	N
Every so often, do you estimate your household's net worth, that is do you add up the value of everything you own, than add up all your debts, and compare the two in order to see how you're doing financially?		
Yes	50	329
No	50	328
If YES, how often do you do this?		
once a year	64	209
more than once a year	28	92
other	7	24
If NO, is it because.....[b]		
never thought about it	47	155
don't need to	26	86
takes too much time	9	29
don't know how	5	16
other	14	46

[a]Percentages may not sum to 100 due to rounding
[b]For questions where respondents indicated more than one answer, the percentages shown are the percentages of total responses

Table 5 shows how the respondents combined the various financial management practices. Only a tiny minority made no attempt at all to manage their finances. On the other hand, only about one-third (N=245) were "textbook managers" who employed all four of the recommended procedures. "Textbook management" was however the most commonly reported pattern of management, followed by the pattern which eliminated the estimate of net worth, but included the other procedures.

Table 5. Percentage of Respondents Reporting Selected Patterns of Financial Management

Pattern	Percent[a]	N
Do nothing	2	16
Use one procedure		
records only	10	68
plan only	5	31
estimate net worth only	1	7
Use two procedures		
plan and record spending	12	81
record spending and estimate net worth	5	32
plan and estimate net worth	1	10
Use three procedures		
budget, record spending, and compare	21	143
budget, record spending, and estimate net worth	5	35
Use all four procedures (budget, record spending, compare spending to budget, and estimate net worth)	37	245

Note: percentages may not sum to 100 due to rounding

What separates the "textbook managers" from the other respondents? Do the "textbook managers" enjoy any benefits that the others do not? To answer these questions, the "textbook managers" were compared by means of T-tests to the other respondents on the basis of several demographic variables and also on two variables designed to measure the output of financial management: household net worth, and satisfaction with overall financial situation. Respondents were asked to estimate their assets and debts, and to record their answers as one of a series of 12 ranges. The responses "less than $5,000" and "over $1,000,000 million" for assets and "over $750,000" for debts were eliminated from the analysis because the categories lacked a lower or upper boundary. The remaining responses were recoded to the midpoint of the asset or debt category and net worth was estimated by subtracting the debts from the assets. Responses to the question "how do you feel about your financial situation in general?" were coded on a five-point scale ranging from "delighted" (5) through "pleased", "mixed", "dissatisfied", to "terrible" (1).

The results of the T-tests, given in Table 6, show that the "textbook managers" were somewhat better educated and had higher incomes. The "textbook managers" had completed some post-secondary schooling, and their incomes were, on average, about $5,300 more than the other respondents. There was no significant difference between the two groups in age and family size. The "textbook managers" had amassed significantly higher amounts of net worth (a difference of about $32,000 between the two groups) and reported higher levels of financial satisfaction, although the difference between the two groups was only a quarter of a point on the five point scale.

Table 6. Selected Characteristics of "Textbook Managers" Compared to Other Respondents

Characteristic	Group Mean		
	Textbook Managers	Others	
Age	49.3	48.6	N.S
Family size	2.9	2.7	N.S
Education category	some post-secondary	high school graduate	**
Income	$28,878	$23,575	**
Net worth	$133,821	$101,995	*
Satisfaction with financial situation	3.27	3.06	**

* t-test significant at .05 level
** t-test significant at .01 level
N.S not significant

Discussion

The results reported above are consistent with previous studies of family financial management (Beutler et al., 1979; Godwin et al., 1986; Mueller & Tahira, 1984; Mullis et al, 1982; Schnittgrund et al., 1983). Taken together, these studies indicate that people manage their financial affairs in a way that incorporates the recommended procedures, but in a less formal and structured manner than that prescribed in many textbooks.

It appears from the results of this study that lack of time and knowledge are not the primary reasons people fail to use the recommended procedures. Rather, it appears that motivation is lacking. The people who said they "don't need to" make budgets, keep records, or compare the two may be saying that they don't see anything to gain by using these procedures. The large proportion of respondents who did not prepare balance sheets, and the large proportion of that group who reported that they "never thought about" doing so may mean that many households are more concerned with maximizing their consumption level than they are with building their stock of wealth. It may also be that people don't understand how a balance sheet can be used to analyze a household's financial standing. Perhaps financial educators need to devote more attention to this topic in their programming.

It also appears from the results of this study that financial management is not an all-or-nothing effort. Almost all of the respondents used at least one of the recommended procedures; 63 percent used three or more. It may be that people who don't use all four practices need to be apprised of the reasons for using the others. It may also be that households experiment with various combinations of practices, until they find the one that best suits their perceived needs at the time.

The "textbook managers" in this study had more education and more money, in terms of both income and wealth, than the other households. The "textbook managers" were also slightly more satisfied with their overall financial situation than the other households. However, from the bivariate analyses reported above, one cannot determine how "textbook management" affects financial outcomes. It may be that the "textbook managers" have more wealth because they have more income, rather than because they are "better" managers. Indeed, if "textbook management" is consistently associated with a higher level of resources (such as education and income), it may be hard to separate the effects of one from the other, or capture the interaction between the two. Isolating the unique effects of financial management practices on financial outcomes is the challenge that lies ahead.

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ANALYSIS OF THE EFFECTS OF CHILDREN ON THE TRADE-OFF BETWEEN PARENTAL TIME AND MARKET PURCHASED GOODS & SERVICES OVER THE LIFE CYCLE

Robin A. Douthitt, University of Wisconsin-Madison[1]
Joanne M. Fedyk, The University of Saskatchewan

Abstract

The authors use Canadian expenditure data to examine the effects of children on the trade-off between parental time and consumption. Overall, the effect of children is to cause a reduction in share of full income devoted to leisure activities, an increase in shares of full income devoted to home production activities by both parents and further increases in current consumption. Regional differences in the reallocation of full income are also analyzed.

Introduction

In a recent article Deaton and Muellbauer (1986) identified three possible ways in which families meet the costs of raising children. They show that parents may substitute out of current consumption, future consumption, or leisure time. We found in previous study (Douthitt and Fedyk, 1987) that Canadian families reduce their labour force attachment when children are young, that they reduce future consumption by saving less and that they substitute out of consumption of goods like adult clothing and food away from home in order to meet increased consumption demands placed on them by children. In addition, we found regional differences with regard to the influence of children on savings behaviour. These results lead us to ponder two further questions. First, given that parents appear to reduce their total labour force attachment in response to the presence of children, how do they reallocate those resources? To leisure activities or to home production? Secondly, given that there are regional differences regarding the effects of children on savings, is it possible that families in some regions are meeting higher costs by increasing home production budget shares in lieu of current consumption shares (i.e., substituting home production for current consumption)?

In order to answer these questions we have chosen two regions for analysis; the Prairies and Ontario. They were selected based on our previous work which indicated that Prairie families apparently forgo the least amount of savings over the life cycle compared to their childless counterparts, while Ontario families forgo the most to meet increased commodity demand due to increased family size. Our approach is to examine the full income of families in these regions and to apply a multinomial logit budget share allocation model to analyze the effects of children on family expenditures of both time and money.

[1]Assistant Professors of Family Economics. We gratefully acknowledge financial support for this project from the Social Sciences and Humanities Research Council, Canada, and our respective universities.

Methods

The "new home economics" (see Becker, 1981; Michael and Becker, 1973; and Pollak and Wachter, 1975) serves as the theoretical framework on which we build. We assume that households derive utility from the consumption of home-produced commodities, one of which is child services. The inputs to the production process are time (t) and market goods (x) which the household purchases with either unearned income or earnings obtained from selling their labor in the market. Utility is maximized subject to time, income, and home production technology constraints. Input demand (expenditure) equations are derived by solving the cost function dual problem for the household's expenditure function.

The functional form of our expenditure equations are based on work by Tyrrell (1979). The specification for the function is:

$$f_i(M,S_i) = B_{i0} + B_{i1}\ln M + B_{i2}\ln S + \sum_{r=1}^{4} B_{i2r} \sum_{s=1}^{Sm} L_r(a_s) + \sum_{r=1}^{4} B_{i2(r+4)} \sum_{s=1}^{Sf} L_r(a_s) \qquad (1)$$

where M is full income, S_i is equivalent family size with respect to share i, S is actual family size, Sm is the number of males in the family and Sf is the number of females.[2]

The concept of full income implies that families face both time-budget constraints as well as money-income constraints. Becker (1981, p. 6) defines full or potential income as follows:

$$M = \sum p_i x_i + w \sum t_{hj} \qquad (2)$$

where M is full income, $\sum p_i x_i$ is total money expenditures, w is earnings per hour of work, and t_{hj} is time spent in all non-market activities. Thus, Becker points out that families spend their full income (time and money) for market purchased goods and services and indirectly for utility producing activities.

Features of the multinomial logit budget allocation model (MLBAM) include the fact that it satisfies the Engel and Cournot aggregation constraints (it can also be constrained locally to satisfy homogeneity and Slutsky symmetry conditions). It relates commodity expenditures to a nonhomogeneous function of total expenditures and household size thereby allowing for economies and diseconomies of scale. In addition, it allows examination of the effect on commodity expenditures of adding a certain type of person to a specifically defined family type. Since such

[2]Due to space limitations we are unable to include a complete exposition of the model. An appendix to this paper describing the model used is available from the authors upon request.

effects may vary according to the characteristics of other household members, MLBAM's measure of the influence of family composition on family expenditures does not strictly belong in to the Engel "class" of equivalence scales. However, it is the authors' opinion that trading off these theoretical considerations yields important utilitarian value in answering applied questions regarding child rearing costs.

Data Description

The data used in this study were collected as part of Statistics Canada's 1982 Survey of Family Expenditures (FES). They include both expenditure and demographic information collected from a random sample of over 10,000 Canadian households. The scope of the study was limited in several respects because Statistics Canada did not release the entire survey for public use. For example, gender of children in a family was not revealed, meaning that the differences in costs and expenditures between male and female children which have been shown to exist (Olson, 1983) could not be examined.

As was discussed in the introduction we chose two regions for our analyses: Prairies and Ontario. Our final sample sizes and characteristics are reported in Table 1, and consist of husband-wife families (1) with neither spouse older than 64 years of age, (2) not living on a farm, (3) with all members present the entire year and (4) whose income was not comprised of more than one third income-tested government assistance in 1982.

TABLE 1. Mean Sample Characteristics by Region of Canada.

	Region	
	Prairies	Ontario
Age:		
Male Spouse	40.1	41.3
Female Spouse	38.2	39.0
Income:		
Mean	$31,710	$31,070
Median	29,431	28,960
Average Family Size	3.3	3.4
n	1065	1167

From MLBAM parameter estimates we are able to simulate family budget shares over the life cycle. Predicted budget shares are generated for each year of the life cycle with every family member aging accordingly. For purposes of this report we chose to simulate expenditures for an "average" Canadian family, identified by using national statistics regarding family economic, fertility and marriage behaviour. For example, it is assumed that our "average" couple marries when the man is 26 and the woman is 23, the 1982 population average ages at first marriage. Simulations are performed for two child families, since average family size for couples with children is 2.2. Consistent with population trends, we assume that the first child is born when the mother is 25 and the father is 28 and the second child is born two years later. Children are assigned an age of 0 in the year of birth since our sample explicitly excludes part year family members. Further, since the oldest child in the sample is 18 years of age, children are assumed to leave home after age 18.

For each family in our two regions we calculated the independent variable, full income. The FES data contain information regarding total money expenditures ($\sum p_i x_i$), as well as parental earnings, weeks worked and unearned income. What we lacked were data regarding time spent in household production, and a value for earnings per hour of work for those parents who were not paid labour force participants.

With regard to estimating home production time, we were fortunate in that Employment and Immigration, Canada conducted a national time use study in the same year as the FES data were collected (See Employment and Immigration, 1983). We obtained those data and after defining samples similar to our FES samples, estimated parameters of leisure equations for both men and women in each region. We used those parameter estimates to predict time spent in leisure for our FES families. Time spent in home production was calculated as a residual of total time available in the year (52 weeks) minus predicted leisure time and actual time spent in labour force activities.

In order to derive measures of the value of parental earnings for those who did not report a market wage, we used a technique outlined by Heckman (1976) to derive "shadow" wages. Thus, people with observable wages were assigned a value of earnings equal to their actual wage, while those with unobserved wages were assigned a shadow wage. Table 2 presents descriptive statistics regarding the value of earnings for both groups. Both home production and leisure time were assigned this value and multiplied by hours spent in both activities to derive estimates of $w\sum t_{hj}$.

TABLE 2. Descriptive statistics for value of work for employed and non-employed parents by gender.

	Prairies	Ontario
Women		
Actual wages	$6.716	$5.472
	(2.35)	(3.49)
Shadow wages	$6.919	$6.628
	(1.59)	(5.29)
Men		
Actual wages	$11.271	$11.474
	(5.15)	(5.28)
Shadow wages	$10.341	$11.371
	(4.80)	(3.00)

In order to simulate results for our average Canadian family we needed annual estimates of full income over the life cycle. First we estimated total non-market time expenditure equation from our samples and predicted estimates of these expenditures for our average family over the life cycle. Next we added these estimates to the annual total expenditure values imputed from our previous work to derive full income estimates.

We estimated a four equation expenditure system in this part of the analysis with dependent variables defined as budget shares for current consumption, father's time in home production, mother's time in home production and the sum of total leisure by

both parents. Independent variables in the analysis include full income, family size and a transformation of the age of each family member.

Results

Effects of children on goods and time consumption

Figures 1 through 6 present the effects of children on Prairie family budget shares over the life cycle. Figures 7 through 12 present the same results for Ontario. The general effects of children on the "expenditure" categories are the same across regions, with the exception of consumption. Prairie families appear to reduce the share of their full income allocated to consumption upon the birth of children and only surpass what they would have spent on current consumption in the absence of the marginal child once the first (only) child is 9 and when the oldest (of two) is 13 years of age. Ontario families immediately increase consumption in order to meet increased demands of the first child. At every year in the life cycle they devote a larger share of full income to consumption than they would have in the child's absence. However, their response to the addition of the second child is more similar to Prairie families in that they reduce (albeit slightly) their consumption earlier in the life cycle while increasing consumption's share as children reach their teen years.

In both Ontario and the Prairies, fathers increase the share of full income that they devote to home production after the addition of both the first and second child to the household. Mothers time spent in household production as a share of total income similarly increases as children are added to the household. However, when comparing parental shares it is important to remember that they are measured as hours spent in home production times the value of work. Thus, to compare actual hours spent one must to divide the value of the share by the wage rate. For example, if results were to indicate that both mother's and father's time spent in home production each amounted to ten percent of full income (twenty percent in total) and that women's wages are half that of men, then in actuality women would be devoting twice the number of hours to home production as men.

In both Ontario and the Prairies, the first child has similar effects on share of full income devoted to leisure activities; it is reduced. Second children have a somewhat smaller, but clearly negative marginal effect on share of leisure as well.

Overall, it appears that the effect of children is to cause a reduction in share of full income devoted to leisure activities, an increase in shares of full income devoted to home production activities by both parents and further increases in current consumption.

Regional comparisons of the effects of children on goods and time consumption

Figures 13 through 19 present regional comparisons of families' responses to the presence of children. Figure 13 demonstrates that even in the absence of children, Ontario couples tend to allocate a slightly higher share of their full income to current consumption. However, Figure 14 demonstrates that families in each region adjust their consumption behaviour different from one another. It would appear that Ontario, the region indicated previously that substituted most heavily out of savings as a result of the presence of children, also allocates a larger share of full income to consumption than do their counterparts in the Prairies.
Figures 15 and 16 compare the combined parental home production budget shares by region. Figure 15 indicates that in the absence of children, prairie families devote a larger share of full income to home production than their Ontario counterparts. Because of this initial difference it is difficult to evaluate whether children have differential impacts on the home production share. However, it is clear that over the life cycle that Ontario families spend a smaller share of full income for home production activities than do their Prairie counterparts. However toward the end of the life cycle, both tend to apportion similar shares.

Figures 17 through 19 compare shares of full income devoted to leisure activities by parents between the two regions. Figure 17 indicates that even in the absence of children, Prairie families spend less time in leisure activities that their counterparts in Ontario. However, this difference diminishes over the life cycle. Figures 18 and 19 indicate that Prairie families with young children allocate a smaller share of full income to leisure than do their counterparts in Ontario. However, just the opposite holds true at latter stages of the life cycle for both the one-and two-child families.

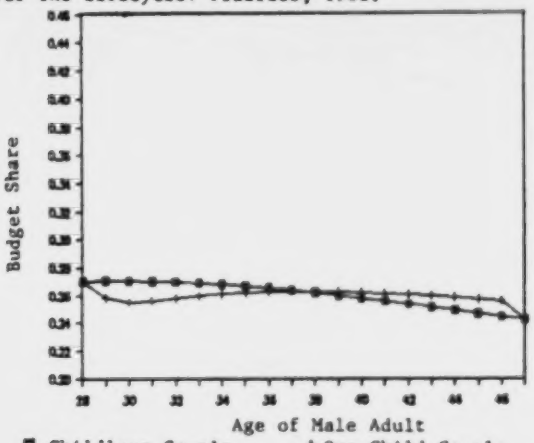
The reader should keep in mind the same caveat regarding relative wage differences between regions that were suggested between sexes. That is, it is possible, if there exist wage differentials between families in the Prairies and families in Ontario, that one can not directly infer differences in actual hours allocated based on observed budget shares.

Conclusions

Results reported in this study shed new light on neglected areas regarding the manner in which families meet increased consumption demands placed on them by children. Evidence is reported on the manner in which families allocate both their time and goods to meet child rearing needs. Although some regional differences are noted, results generally indicate that home production is at least as an important method of meeting those costs as increased consumption. Leisure appears to be the primary activity that families substitute out of in order to meet the increased demand.

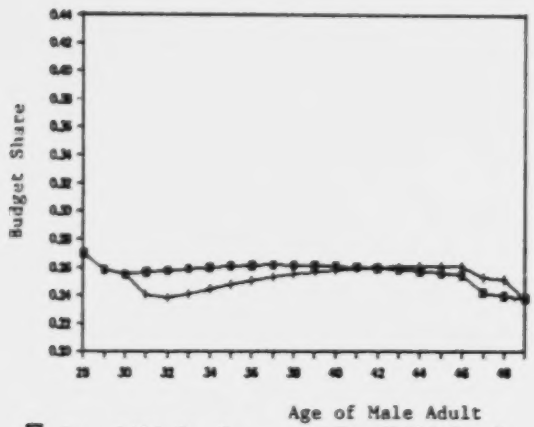
Additional questions that remain include the cause for regional differences noted in this research. It is possible that price or taste differentials lead to the differences noted. However, only additional study will provide us with the answers.

FIGURE 1. Comparison of full income allocated to consumption by childless and one-child families over the lifecycle: Prairies, 1982.



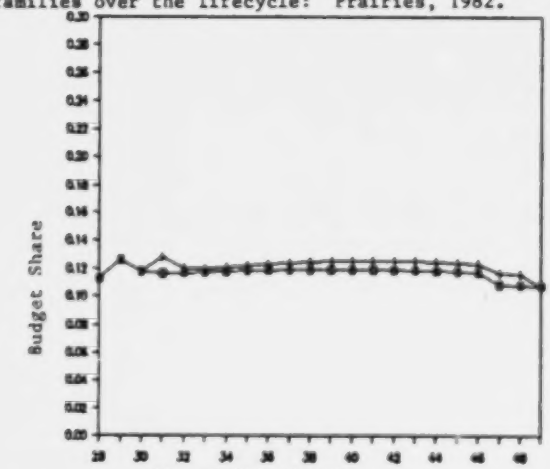
□ Childless Couple +One-Child Couple

FIGURE 2. Comparison of full income allocated to consumption by one-child and two-child families over the lifecycle: Prairies, 1982.



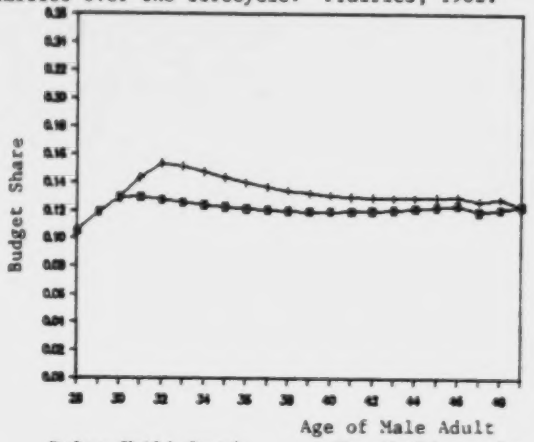
□ One-child Couple +Two-Child Couple

FIGURE 3. Comparison of full income allocated to father's home work time by one-child and two-child families over the lifecycle: Prairies, 1982.



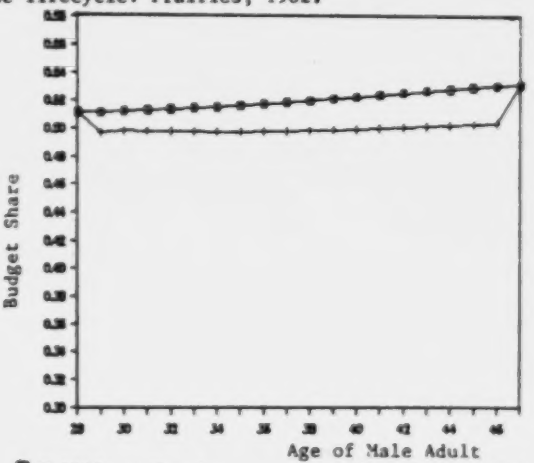
□ One-child Couple + Two-Child Couple

FIGURE 4. Comparison of full income allocated to mother's home work time by one-child and two-child families over the lifecycle: Prairies, 1982.



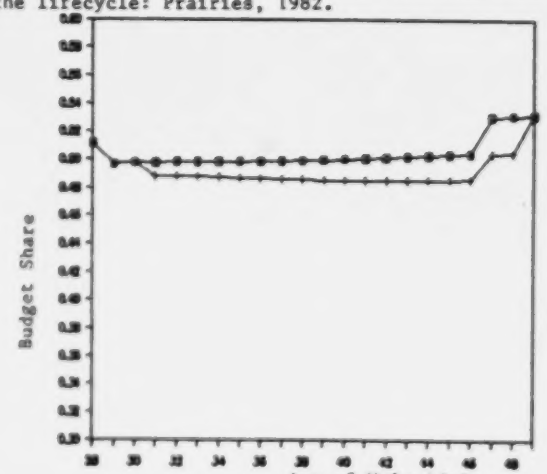
□ One-Child Couple + Two-Child couple

FIGURE 5. Comparison of full income allocated to leisure by childless and one-child families over the lifecycle: Prairies, 1982.



□ Childless Couple + One-Child Couple

FIGURE 6. Comparison of full income allocated to leisure by one-child and two-child families over the lifecycle: Prairies, 1982.



□ One-Child Couple + Two-Child Couple

FIGURE 7. Comparison of full income allocated to consumption by childless and one-child families over the lifecycle: Ontario, 1982.

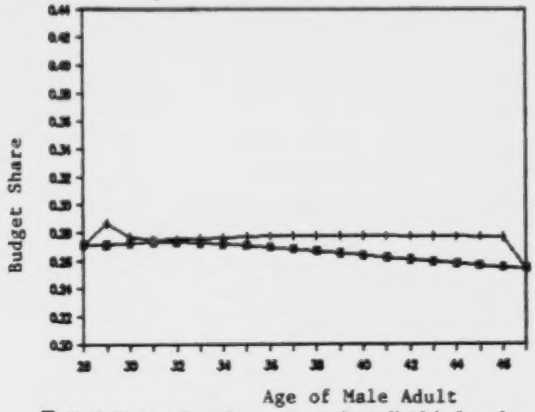


FIGURE 8. Comparison of full income allocated to consumption by one-child and two-child families over the lifecycle: Ontario, 1982.

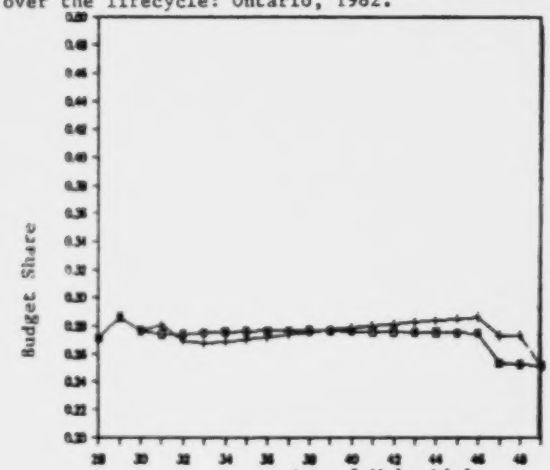


FIGURE 9. Comparison of full income allocated to father's home work time by one-child and two-child families over the lifecycle: Ontario, 1982.

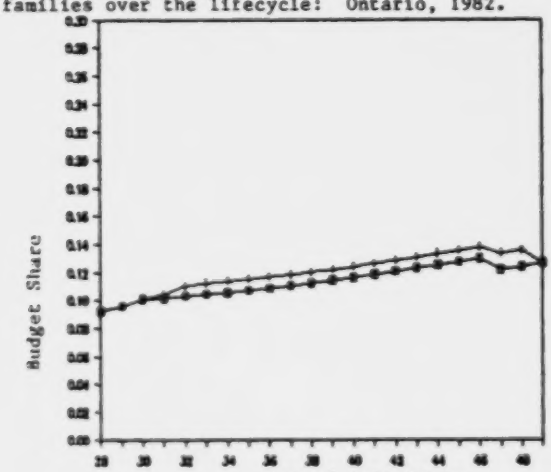


FIGURE 10. Comparison of full income allocated to mother's home work by one-child and two-child families over the lifecycle: Ontario, 1982.

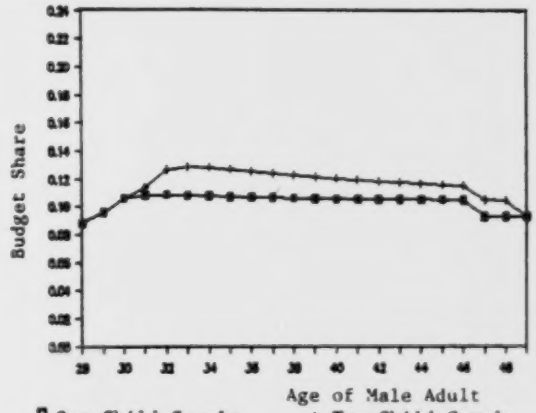


FIGURE 11. Comparison of full income allocated to leisure by childless and one-child families over the lifecycle: Ontario, 1982.

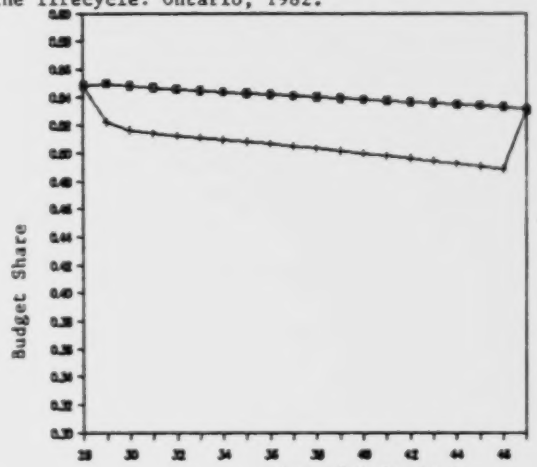


FIGURE 12. Comparison of full income allocated to leisure by one-child and two-child families over the lifecycle: Ontario, 1982.

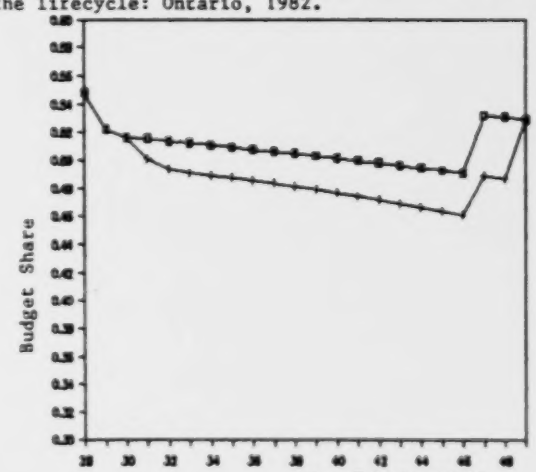


FIGURE 13. Regional comparison of full income allocated to consumption by childless couples.

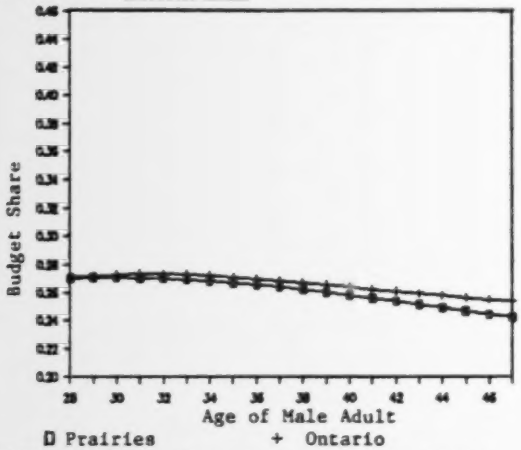


FIGURE 14. Regional comparison of full income allocated to consumption by one-child couples.

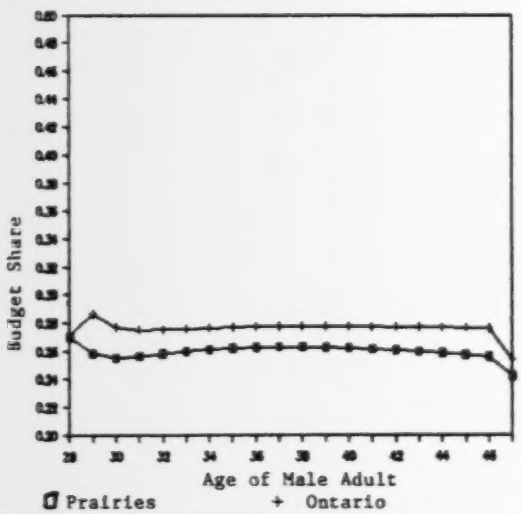


FIGURE 15. Regional comparison of full income allocated to household production by childless couples.

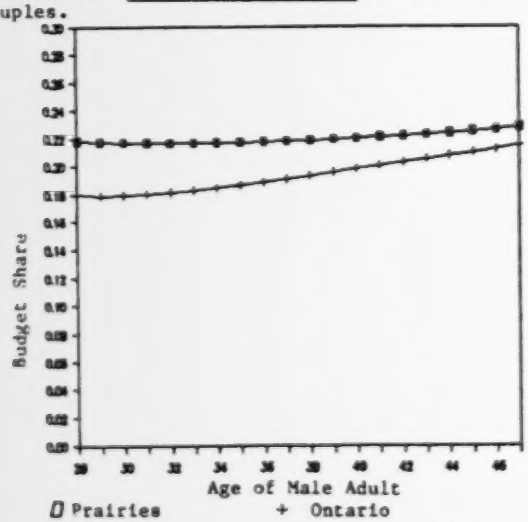


FIGURE 16. Regional comparison of full income allocated to household production by one-child couples.

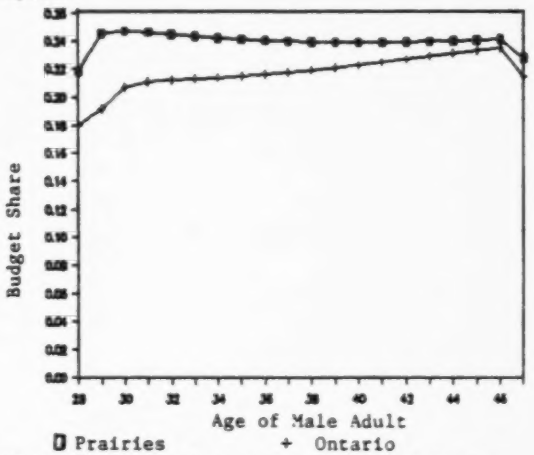


FIGURE 17. Regional comparison of full income allocated to leisure by childless couples.

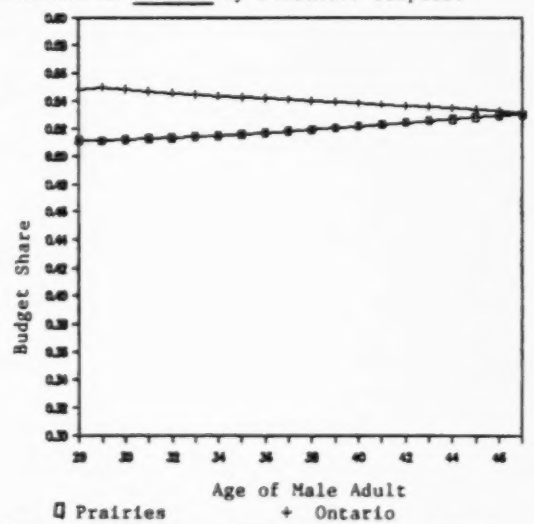


FIGURE 18. Regional comparison of full income allocated to leisure by one-child couples.

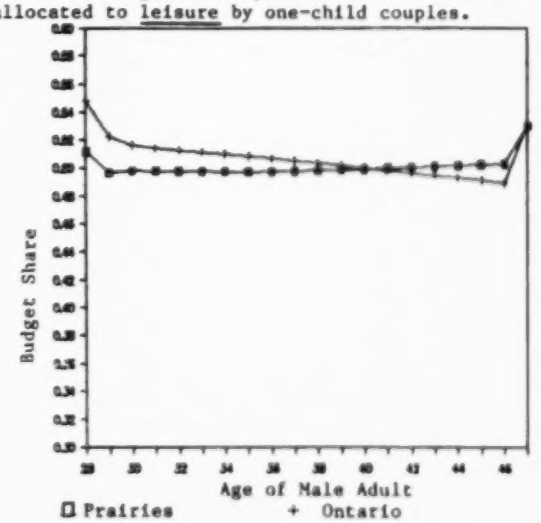
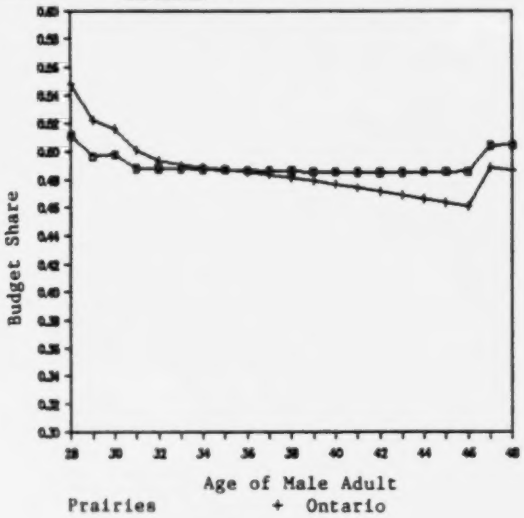


FIGURE 19. Regional comparison of full income allocated to leisure by two-child couples.



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FACTORS RELATED TO RECEIVING INFORMAL GRANTS: A Study of Rural Families[1]

Virginia A. Haldeman[2], Ann Tomcala[3], Helen C. Hall[4]

ABSTRACT

Informal grants contribute to the economic well being of families. In this study, younger families were more likely than older families to receive informal family grants. Those who received informal family grants also were likely to receive informal community grants. Regression analysis was used to identify the factors which could be used to predict the value of informal family grants received.

The traditional perception of the rural lifestyle as self-sufficient, slow paced, and unstressed has been challenged by the economic crises recently experienced in many areas of rural America. Usually described as the "farm crisis", the economic recession also affected rural communities dependent on other extractive industries including fishing, forestry and mining. As foreclosures and unemployment rates increased, many rural residents were forced to relocate (Bradshaw & Blakely, 1982; Coward, 1983; Ross & Usher, 1986).

Nevada was not immune. Many rural communities had been heavily dependent on mineral extraction industries. When mines and refineries closed, many residents left. Families who remained could do so because they had access to an adequate financial resource base (Dobra, Atkinson, & Barone, 1983; Haldeman, Peters & Martin, 1986; Siegel & Good, 1986; Vetter, 1986; Voyles, 1986).

Families have remarkable resilience when responding to changes in the environment. Those who face similar adverse circumstances (e.g. limited financial resources) employ different resources, or utilize the same resources in different ways, in order to achieve the same goal (i.e. maintain an adequate financial resource base) (Deacon & Firebaugh, 1975; Gross, Crandall, & Knoll, 1980; Paolucci, Hall, & Axinn, 1977). The traditional means of acquiring economic resources (income) is to work for wages or salary. Some rural families have access to income from investments (interest, dividends, rent, etc.) (Haldeman & Peters, 1986). Others barter or trade, while some place partial reliance on the grants economy (Bivens, 1976; Sussman and Bufchinal, 1962).

In the grants economy, financial resources are received in a number of ways and forms. Formalized grants such as transfer payments can be important to families after retirement and to those in which the primary wage earner is disabled or unemployed. Some people receive informal community grants by using the services of community agencies and institutions. Others receive informal family grants (including money, goods or services) from relatives, friends, or neighbors, without arrangement for immediate or contractual reciprocity. Formal grants, informal community grants, and informal family grants are used by individuals and families to maintain an adequate financial resource base and some degree of satisfaction with their family financial situation. However, a single individual or family may not use all types of grants. (Bivens, 1976; Boulding, 1973).

Earlier studies have found that most informal family grants are received by young families and elderly families. Grants are most likely to be received in times of financial stress or when a physical disability exists. In most instances grants are in the form of non-money transactions such as assistance with household work, child care, and transportation (Deacon & Firebaugh, 1975; Hobbs, 1968; Knoll, 1954).

In a study conducted in New Mexico, Smith and Olson (1984) found a statistically significant difference in the value of informal family grants received by beginning families and elders. Beginning families received grants amounting to a higher dollar value than did elderly families. There was no statistically significant difference in dollar value of grants received according to three categories: money, goods, and services.

When individuals and families experience financial need, some economic assistance is usually available in the community, although it has been reported that such informal community grants are under utilized by residents. In some cases people were not aware of the various services available to them in the community. In other cases, they believed that using informal community grants would endanger their self-reliance (Deacon & Firebaugh, 1975; Siegel & Good, 1986).

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[1] Support for this project was provided in part by the Nevada Agricultural Experiment Station through the Cooperative Regional Project, W-167, Coping With Stress: Adaptation of Western Families to Socioeconomic Change.

[2] Associate Professor, School of Home Economics, University of Nevada Reno.

[3] Home Economics Department Chairman, Mc Coy High School, Medicine Hat, Alberta, Canada.

[4] Associate Professor, School of Home Economics, University of Nevada Reno.

Purpose and Objectives of the Study

In Nevada, rural residents have been identified as survivors and as fiercely independent. It is reported that they believe it unacceptable to accept "hand-outs" from the government and believe in helping each other when things get rough (Haldeman, Peters & Martin, 1986; O'Driscoll, 1986; Siegel & Good, 1986; Voyles, 1986). Maintaining an adequate financial resource base is complicated by high unemployment rates, low median family incomes and increasing poverty rates (Christiansen & Walker, 1986).

In an earlier study, Haldeman, Peters, and Martin (1986) found that many rural residents counted income from investments as their first or second most important source of income. It could be hypothesized that those families who have chosen to remain in rural Nevada communities use informal grants to augment their income from more traditional sources. In this way they are able to maintain a financial resource base which allows them to remain in their desired locale.

While earlier works have examined who gives what to whom and when in the life cycle grants are most likely to be given or received, the objectives of this study were to:

1). identify the socioeconomic and demographic characteristics which are significantly different for those who do and those who do not receive informal family grants; and
2). identify a set of factors which can be used to predict the value of informal family grants received.

Procedures

The data for this study were gathered as part of the AES Regional Research Project W-167, Coping with Stress: Adaptation of Nonmetropolitan Family to Socioeconomic Change. A random sample of 800 names was drawn from the telephone books of the county seats of four randomly selected counties: Goldfield in Esmeralda County, Yerington in Lyon County, Tonopah in Nye County, and Ely in White Pine County. Dillman's (1978) Total Design Method was followed in the development and mailing of the survey instrument. Responses were received from 342 households. Frequencies were computed and the Chi Square Test for Independence was used to determine whether or not receiving informal family grants was dependent upon stage in the family life cycle, level of education, level of household income, level of household savings, level of household non-mortgage debt, whether or not it was a first marriage, level of socializing, the employment status of the male head of the household, or whether or not informal community grants were received.

Stepwise multiple regression analysis was used in order to identify the group of variables which would best predict the dollar value of informal family grants received. In the regression analysis the predictor variables included number of informal community grants received, length of residency in the community, number of relatives living nearby, and length of current marriage were used as well as the first eight of the nine variables used in the Chi Square analyses.

Results

The results are reported in two sections. The first section includes frequency data for each of the variables included in the statistical analyses. Numbers of missing cases are not reported. The results of the statistical analyses are reported in the second section.

Descriptive Data

Of the 342 respondents, 241 (70 percent) reported receiving informal family grants during the previous year. The mean dollar value of grants received was $1665.15 and total amounts received ranged from ten ($10) dollars to $28,539. The mode for total amount received was fifty ($50) dollars.

All stages in the family life cycle were represented. There were 42 (12 percent) in the beginning or young family category, 131 (38 percent) in the full nest stage, 85 (25 percent) in the empty nest stage, and 84 (25 percent) in the retirement stage.
Respondents were grouped into three categories for the purpose of identifying their level of education. One hundred twenty-five (37 percent)had completed high school or less; 130 (38 percent) had gone beyond high school to complete some college, technical, or trade school; and 71 (21 percent) reported having a baccalaureate degree or higher.
Household incomes ranged from less than $14,999 to over $40,000. Respondents were grouped in four income groups. There were 79 respondents (23 percent) who reported an annual before tax income of less than $14,999; 71 (21 percent) reported that their household income was between $15,000 and $24,999; 94 (28 percent) reported it to be between $25,000 and $39,999; and 63 (18 percent) reported an annual before tax income of over $40,000.

Total household savings ranged from no savings to savings greater than an amount equal to two years' income. Savings equal to less than one month's income was reported by 58 respondents (17 percent). Eighty-nine (26 percent) had saved amounts equal to between one month's and five months' income; 58 (17 percent) had between five and twelve months' income; 33 had more than one year's but less than two years'; and 60 (18 percent) had saved amounts equal to more than two years' income.

When asked about their level of total household non-mortgage debt, only 18 (5 percent) reported their debt load to be the equivalent of more than two years' income. Forty-six (13 percent) reported their debt load to be more than one but less than two years' income; 104 (30 percent) had a debt load equal to between five and twelve months' income; 72 (21 percent) had between one and five months' income in debts; and 64 (19

percent) owed less than one month's income.

Of the 256 who were married, 187 (55 percent) reported that their current marriage was their first marriage. The mean length of marriage was 16.4 years.

The level of socializing was determined by the number of occasions family and friends got together within a period of one month. Frequencies ranged from never (13 respondents) to daily (17 respondents). The most often reported frequency of socializing was once a month or less (81 respondents or 24 percent). Seventeen respondents (5 percent)indicated that they socialized on a daily basis. Sixty seven (20 percent) respondents reported socializing several times a week, while 61 (18 percent) indicated that they did so about once a week. Seventy-four (22 percent) socialized once a month and 13 (4 percent) never socialized. Two hundred fifty-four respondents (74 percent) reported that the male head of household was currently employed. A retired status was reported by 64 (19 percent),and 20 (6 percent) of the male heads of household were unemployed.

Level of informal community grants received was determined by calculating the total number of community services respondents indicated they had used. Two hundred eighty-eight respondents (80 percent) reported using between one and eight community services while 54 (16 percent) used none. The majority of respondents reported using between one and four of the listed community services.

The average length of residence in the community was 22 years. Nearly half (166 or 49 percent) of the respondents had lived in their community for more than twenty years.

In response to the question, "How many relatives who don't live with you live in your town?", 205 (60 percent) indicated that they had relatives living nearby. Forty-nine respondents (14 percent) reported having 21 or more relatives living in their community while 137 (40 percent) reported that they had no relatives living nearby.

Scores for satisfaction with family finances were calculated from responses to six questions using a Likert scale. Responses for each question ranged from 1 (extremely dissatisfied) to 6 (extremely satisfied). Total scores ranged from six to 36 with a mean score of 22.69. Thirty-six respondents (11 percent) had scores between 6 and 15 (scores less than one standard deviation below the mean) designated as an indication of low satisfaction. There were 169 (49 percent) who scored between 16 and 26 (scores between one standard deviation below and one standard deviation above the mean) indicating moderate satisfaction. The 79 (23 percent) who had scores between 27 and 36 (scores greater than one standard deviation above the mean) were classified as being in the high satisfaction category.

Findings

Only two factors were found to be statistically significant in determining whether or not respondents received informal family grants: stage in the family life cycle and receiving informal community grants. The Chi Square value for stage of the family life cycle was X^2 = 21.79. With four degrees of freedom, the Chi Square value was statistically significant at p $.01 (Table 1).

Table 1

Informal Family Grants Received or Not Received by Stage in Family Life Cycle

		NEWLY MARRIED Couple	FULL Nest	EMPTY Nest	RETIRED	N
YES	O[a]	36	105	53	47	241
	(E)	(30)	(95)	(60)	(59)	
NO	O	6	26	32	37	101
	(E)	(12)	(39)	(25)	(25)	
Total		42	131	85	84	342

Chi Square Value = 21.7 (p $ .001)

a: O = observed frequencies
(E) = theoretical expected frequencies

As had been found in earlier studies, younger families were more likely than older families to receive informal family grants. However, the earlier finding that those in the empty nest stage were the least likely to receive grants was not supported. Eighty-eight percent of those in the empty nest stage who could have been expected to receive grants did so. However, in the retired stage, only 80 percent of those who could have been expected to receive grants did receive them. The reason for this finding is not clear. It could be that those who are retired are inmovers and consequently do not have the necessary social support system in place. However, in this study, receiving informal family grants was not related to number of social contacts or having relatives in the community. Another possible reason is that the older members of the community are more representative of the independent survivors who scorn "hand-outs", whatever their source.

The Chi Square value for receiving informal community grants was X^2 = 5.14. With two degrees of freedom, the Chi Square value was statistically significant at p $.02. Families who received informal community grants were more likely to receive informal family grants than families who had not received informal community grants (Table 2).

These findings are supported by the findings of earlier studies that there is a relationship between financial distress and using community services. It appears that people who have financial problems attempt to use alternative resources in order to improve their financial

situation, and that taking advantage of informal community grants is one of those alternate resources. Since those who are experiencing financial difficulty are likely to receive help from their parents, those families would also receive informal family grants.

Table 2
Informal Family Grants Received or Not Received by Informal Community Grants Received.

		NO COMMUNITY GRANTS	COMMUNITY GRANTS	N
Family Grants	O[a]	222	19	241
	(E)	(216)	(25)	
No Family Grants	O[a]	84	17	101
	(E)	(90)	(11)	
Total		306	36	342

Chi Square Value = 5.14 (p = .023)

a: O = observed frequencies
(E) = theoretical expected frequencies

Stepwise multiple regression was used to determine which of thirteen variables could be used to predict the value of informal family grants received. The F to enter for only one of the thirteen variables, number of community services used, was significant at p $.001. Three percent of the variance (R^2 = .030) in the value of family grants received was explained by the number of community services used. As the number of community services used increased so did the value of family grants received. Ten other variables had a statistically significant overall F (p $ .001) and entered the regression equation. Listed in order of entry into the regression equation (with the direction of the relationship to informal family grants received), those variables were: length of marriage (negative), level of education (positive), number of years in the community (negative), score for satisfaction with family finances (negative), number of relatives living nearby (negative), level of household non-mortgage debt (negative), whether or not this marriage was a first marriage (positive), stage in the family life cycle (negative), employment status of the male head of household (positive), and level of household savings (negative) (Table 3). Two variables, level of household income and level of socializing, did not enter the regression equation.

The positive relationship between value of grants received and number of informal community grants received provides support for previous findings that receiving informal family grants is related to use of community resources. The inverse relationship between value of informal family grants received and level of debt support earlier findings that those who experience financial problems receive grants. These findings provide evidence of the importance of informal grants to maintaining an adequate financial resource base.

Table 3

Results of Stepwise Multiple Regression with Dollar Value of Informal Family Grants as the Dependent Variable

Step	Variable	b	R square
1.	Informal community grants	234.14	.03
2.	Length of marriage	-12.25	.04
3.	Level of education	23.43	.05
4.	Years in community	-11.28	.06
5.	Satisfaction with family finances	-36.04	.06
6.	No. of relatives living nearby	-8.65	.07
7.	Level of household non-mortgage debt	-3.97	.07
8.	First marriage	78.38	.07
9.	Stage in life cycle	-71.29	.07
10.	Employment status of male head of household	41.78	.07
11.	Level of savings	-.86	.07
12.	(CONSTANT)	1960.884	

Summary and Conclusions

Two factors were found to be significant in identifying characteristics of those who do and those who do not receive informal family grants: stage in the family life cycle and receiving informal community grants. As was expected, younger families were more likely than older families to receive informal family grants than older families.

As had been found in previous studies, receiving informal community grants is strongly related to receiving informal family grants. Futhermore, the only variable which was significant in predicting the dollar value of informal family grants received was the number of informal community grants received. An important finding was that level of household income and level of socializing, did not enter the regression equation and consequently cannot be used to predict the dollar value of informal family grants received.

Residents of rural communities in Nevada do participate in the informal grants economy. Those who received informal family grants were likely to receive informal community grants through their used of services provided by community agencies and institutions.

An increase in the value of informal family grants received could be predicted for those families with higher levels of education, where the current marriage was a first marriage, or when the male head of household had professional or managerial position. Decreases in the value of informal family grants received could be predicted for those who had been married longer, had lived in the community longer, were more

satisfied with their family finances, had more relatives living nearby, were more deeply in debt level, were retired, or had more savings.

The majority of these findings are congruent with those of previous research. However, this study was unusual in that annual income was not a factor in predicting value of informal family grants received. These findings support the theory that families employ different resources, or utilize the same resources in different ways, in their attempts to maintain an adequate financial resource base and satisfaction with their family financial situation. It appears that total income provides a base to build on and that families residing in isolated rural communities make use of informal grants to help achieve their economic goals.

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HEALTH, SELF-ESTEEM AND YOUTH EMPLOYMENT

Arlene Holyoak, Oregon State Uniyersity[1]
Jerri Wolfe, Seattle, WA[2]

Abstract

The 1980 National Longitudinal Survey of Youth was used to determine if health impaired youths differ from nonhealth impaired youths by certain family and personal characteristics, labor force variables and self-esteem. Health impaired youths are less likely to have jobs, work fewer hours per week and perceive their jobs as more dangerous than nonhealth impaired youths. Youths whose health prevents labor force activity have lower self-esteem than health impaired and nonhealth impaired youths who are in the labor force.

In the progression from adolescence to adulthood, teenagers commonly hope for increased independence and vocational involvement. While this transition can be problematic for any teenager, it may be doubly difficult for health impaired teenagers. In recognition of the difficulties that health impaired youths encounter in obtaining employment, a number of educational and employment programs have been developed. However, a minimal amount of research focuses on the work experiences of health impaired young adults (Passmore, Ay, Rockel, & Wise, 1983). As a result, the effects of health impairments on the transition from youth to adulthood are unclear.

The most detailed description of the employment of health impaired youths is provided by Passmore, AY, Rockel, Wade, and Wise (1983). Using the 1979 data from the National Longitudinal Study of Youth, they found that 6.4 percent of youths aged 16 to 21 perceived their work to be limited by their health. While less likely to be employed than their nonhealth impaired cohorts, health impaired youths did not differ in their perceived level of job satisfaction, occupational status and hourly earnings. Duration of impairment was related to incidence of employment, i.e., the longer the presence of the impairment, the more likely the youths were to be employed.

One psychological concept not included in the Passmore et al. (1983) study is self-esteem. Employment experiences have been shown to play a crucial role in the formation of self-esteem (Tharenou, 1979). Pay, autonomy and job complexity are examples of job characteristics positively related to employee self-esteem (Hackman & Lawler, 1971). Researchers (Cohn, 1978; Kasl & Cobb, 1970) have found unemployment to be related to low levels of self-esteem. What, then, is the impact on self-esteem if health limitations limit the type or amount of work in which young adults can participate? When youths are unable to work, do they develop feelings of incompetence?

This research extends the work of Passmore et al. (1983) in two ways. First, it compares the characteristics of jobs (i.e., safety, job security and pay) held by health impaired youths with youths without health problems. Secondly, the nature of the relationship between self-esteem and employment for both health impaired and nonhealth impaired youth is explored.

The research objectives include:

1. To determine if health impaired youths differ from nonhealth impaired by certain family and personal characteristics: gender, marital status, presence of dependents, race, and age duration of health impaired.
2. To determine if labor force variables (activity, perceptions of job characteristics and attitudes) of youths are different when health is impaired and when health is nonimpaired.
3. To determine if self-esteem varies by health status.
4. To determine if level of self-esteem varies by labor force activity.

Method

Sample

The extensive health and employment data provided by the National Longitudinal Survey of Youth (NLSY) were analyzed for this study. Originating in 1979 with youths aged 14 to 21, this data set consists of annual interviews of over 12,000 individuals. Multiple, stratified sampling of single-family dwellings and group quarters was utilized to provide a nationally representative sample. In addition, Hispanic, Black and poor youths were oversampled. The data were collected by the National Opinion Research Center for the Center of Human Resources Research at The Ohio State University. While work and health variables were available in each wave of data collection, self-esteem was measured only in 1980. Therefore this analysis is limited to the 1980 NLSY data. The sample in this study was drawn from all civilian youths between the ages of 18 and 23 who were not enrolled in school in the previous year (1979).

Respondents were asked, "Does your health prevent you from working for pay?" and "Does your health limit the type or amount of work you can do for pay?" Based on their responses, youths were categorized into one of three groups: "Health prevents work" (n = 89); "Health limits work" (n = 172) and Nonhealth impaired (n

[1]Assistant Professor, Family Resource Management, College of Home Economics, Corvallis, OR 97331

[2]Strategy Consultant: Work & Family Management, Coleman Building, 811 First Ave. #222

= 255). A variety of health conditions are represented in this sample. Examples include impairments of the body, diseases, injuries, burns, mental disorders and pregnancy.

Variables

Four major categories of variables were used in this study. They include personal and family characteristics, labor force variables, self-esteem and health status.

Personal and family characteristics. Six personal and family characteristics were measured in this study. They included age, gender, race, marital status, presence of dependents, and the year health limitation began.

Labor force variables. Labor force variables included labor force activity, perceptions of job characteristics, and attitude. The labor force activity was measured for the 1979 calendar year, including number of weeks and hours worked, weeks unemployed, and weeks out of the labor force. "Weeks unemployed" is defined as the weeks actively looking for work or laid off during the 1979 calendar year. "Weeks out of the force" represents the weeks an individual was neither employed nor unemployed during the 1979 calendar year.

Ten statements were used to determine the individual's perceptions of certain job characteristics for current or most recent employment experiences (see Table 1). The four possible responses relative to the job characteristics were available; very true, somewhat true, not too true, and not at all true.

TABLE 1. Statements Used To Determine Percep tions of Job Characteristics

You are given a chance to do the things you do best.
The surroundings are pleasant.
The skills you are learning would be valuable in getting a better job.
The pay is good.
The job security is good.
Your co-workers are friendly.
The chances promotion are good.
You are exposed to unhealthy conditions.
The job is dangerous.
Your supervisor is competent in doing the job.

Two different attitude measures (aspiration and job satisfaction) were used in this study. Aspirations were categorized as working or nonworking based on closed responses to the question, "What would you like to be doing when you are 35 years old?" The closed responses included working; married, raising a family; working and raising a family; and other. The job satisfaction measure consisted of responses to the question, "How do you feel about the job you have now?" Four possible responses included like
very much, like fairly well, dislike somewhat, and dislike very much.

Self-esteem. Rosenberg's (1965) self-esteem scale was used to measure self-esteem. This scale consists of the sum of 10 ratings (on a 4-point scale) concerned with liking and/or approving of one's self. Higher scores represent a positive attitude toward self.

Health status. Three health status classifications were used in this study. Health prevents work, health limits work and nonhealth impaired. Respondents were classified based on their self reports.

Analysis

Differences in the variables between the three sample groups (health prevents work = HP, health limits work = HL and nonhealth impaired = NI) were analyzed using t-tests and chi-square statistics, with the significance level set at .05. Comparison of labor force activity and perceptions of job characteristics is confined to the health limits work and nonhealth impaired groups, since by definition, the health prevents work group had no labor force attachment in 1979. Respondents whose health impairment began during 1979 or 1980 (n = 77) were not included in the comparison of 1979 labor force statistics since their health problems presented a limitation for only part of the year.

Stepwise regression was used to determine the influence of health and labor force activity on self-esteem. "Weeks worked in 1979" was the specific variable used to represent labor force activity in the regression equation. Other variables included in the regression were the year the limitation started, marital status, gender, age and race.

Findings

Personal and Family Characteristics

No significant differences (p>.05) in age, race, or gender were found among the three groups. Group mean ages ranged from 20.5 to 20.6 years. Over 70 percent of each group was White, with approximately 22 percent Black and 4 to 5 percent categorized as other. Females were slightly underrepresented in both the health limits work (43.6%) and the nonhealth impaired (44.3%) groups. Fifty-one percent of the health prevents work group was female.

A significant difference was apparent among the groups in terms of marital status, $X^2(4, N = 516) = 11.08$ p<.05. More (39%) of the health prevents work group were currently married, with fewer (25%) married in the other two groups. No significant differences (p>.05) were observed among groups relative to the presence of dependents, although the health prevents work group

had the fewest members with dependents (20 percent compared to 29 percent for HL and 31 percent of NI).

The mean length of duration of health limitations was significantly different between the two health impaired groups. The health limits work group reported a longer duration of health impairment, $\underline{M}$ = 3.6 years, compared to $\underline{M}$ = 1.34 years for the health prevents work group ($\underline{t}$ = 2.84, $\underline{p}$<.01).

Labor Force Variables

Significant differences at the .01 level were found in the mean numbers of hours and weeks worked in 1979 between the health limits work and nonhealth impaired groups. (Table 2). The mean number of hours worked in 1979 was 837 for individuals with a health limitation compared to 1239 for nonhealth impaired youths. Nonhealth impaired youths worked an average of 32 weeks during the year, seven more weeks than the health limits work group. Similarly, there was a significant difference ($\underline{p}$<.05) for mean number of weeks out of the labor force. The health limits work group reported a mean of 16.8 weeks out compared to a mean of 11.7 weeks for the healthy group. Finally, there was no significant difference ($\underline{p}$>.05). between the two groups' mean number of weeks unemployed. The health limits work respondents were unemployed a mean of 4.6 weeks compared to a mean of 3.6 weeks for nonhealth impaired respondents.

TABLE 2. Mean Labor Force Activity in 1979

	Health Limits Work	Nonhealth Impaired		
	Mean	Mean	t value	Sig
Weeks worked	25	32	3.01	**
Hours worked	836.7	1239	3.85	**
Weeks unemployed	4.3	3.6	.92	NS
Weeks out of labor force	16.8	11.7	2.18	*

* $\underline{p}$<.05
** $\underline{p}$<.01

In relation to perceived job characteristics, both groups reported favorable working situations (Table 3). The highest rated characteristic for both groups was friendly co-workers. Others included competent supervisor, pleasant surroundings and job security. The three characteristics receiving the lowest rankings (less than 70%) by both groups included dangerous job, opportunities for promotion and good income. The only significant difference between the groups relates to the worker seeing the job as dangerous ($\underline{p}$<.05). Forty-five percent of the health limits work group perceived their jobs as dangerous compared to 30 percent of the nonhealth impaired group.

Although no members of the health prevents work group were employed in 1979, 80 percent expressed a desire to be employed at age 35. The health prevents work group did not differ significantly ($\underline{p}$>.05) from the other two groups in future aspirations.

A chi-square comparison of levels of job satisfaction among the two working groups was not significant ($\underline{p}$>.05). Approximately one-third of the respondents in each group indicated they liked their jobs very much, while about one-half reported liking their jobs fairly well. This finding confirms the finding of Passmore et al. with regards to similarity of job satisfaction.

TABLE 3. Chi-Square Analysis for Job Characteristics

Variable	Health Limits		Nonhealth Impaired	
	N	%	N	%
Can do what does best				
Not at all true	6	6.7	7	4.5
Not too true	12	13.3	26	16.7
Somewhat true	35	38.9	61	39.1
Very true	37	41.1	62	39.7
TOTAL	90	100.0	156	100.0
Chi-square = .9441				
Pleasant surrounding				
Not at all true	6	6.7	5	3.2
Not too true	10	11.1	20	12.8
Somewhat true	39	43.3	58	37.2
Very true	35	38.9	73	46.8
TOTAL	90	100.0	156	100.0
Chi-square = 3.015				
Experience valuable				
Not at all true	10	11.1	14	9.0
Not too true	10	11.1	26	16.7
Somewhat true	27	30.0	48	30.8
Very true	43	47.8	68	43.6
TOTAL	90	100.0	156	100.1
Chi-square =1.637				
Job is dangerous				
Not at all true	32	35.6	74	47.4
Not too true	17	18.9	34	21.8
Somewhat true	20	22.2	34	21.8
Very true	21	23.3	14	9.0
TOTAL	90	100.0	156	100.0
Chi-square = 10.38*				
Unhealthy conditions				
Not at all true	36	40.0	79	51.0
Not too true	22	24.4	36	23.1
Somewhat true	19	21.1	24	15.4
Very true	13	14.4	17	10.9
TOTAL	90	99.9	156	100.4
Chi-square = 3.07				
Income is good				
Not at all true	14	15.6	18	11.6
Not too true	14	15.6	33	21.3
Somewhat true	40	44.4	76	49.0
Very true	22	24.4	28	18.1
TOTAL	90	100.0	155	100.0
Chi-square = 3.1				

High job security				
Not at all true	8	9.0	11	7.1
Not too true	8	9.0	14	9.0
Somewhat true	38	42.7	64	41.0
Very true	35	39.3	67	43.0
TOTAL	89	100.0	156	100.1
Chi-square = .318				
Friendly co-workers				
Not at all true	23	100.0	156	100.1
Not too true	4	4.5	2	1.3
Somewhat true	28	31.5	41	26.8
Very true	55	61.8	104	68.0
TOTAL	89	100.0	153	100.0
Chi-square = 2.979				
Supervisor is competent				
Not at all true	9	10.1	5	3.3
Not too true	4	4.5	8	5.2
Somewhat true	29	32.6	36	23.5
Very true	47	52.8	104	68.0
TOTAL	89	100.0	153	100.0
Chi-square = 5.153				
Opportunities for promotion				
Not at all true	19	21.3	28	18.2
Not too true	16	18.0	33	21.4
Somewhat true	26	29.2	51	33.2
Very true	28	31.5	42	27.3
TOTAL	89	100.0	154	100.1
Chi-square = 4.277				

Self-Esteem

There were no significant differences ($p>.05$) between the two employed groups of youths on their mean self-esteem scores. The mean scores were 30.8 for the health limits work group and 31.3 for nonhealth impaired group (within a range from 10 to 40). In contrast, the mean of 29.4 for the health prevents work group was significantly lower ($p<.05$) than the other two groups. Thus, it appears from these data that being employed may affect self-esteem.

Further analysis using stepwise regression supports the conclusion that employment is related to self-esteem. Only one variable, weeks worked, accounted for a significant portion of the variance in self-esteem. Weeks worked entered the equation with an F value of 39.9, significant at the .001 and had a R^2 value of .075. Examination of the coefficient indicated a positive relationship between number of weeks worked and self-esteem score. That is, the greater the number of weeks worked the higher the level of self-esteem. Marital status, sex, age, race, group, and duration of limitation were included in the regression procedure but did not yield significant t values.

Summary

The three sample groups did not differ with regard to age, race, gender and presence of dependents. They did differ, however, in marital status: members of the health prevents work group were more likely to be married. In terms of duration of health impairments, the health limits work group had been impaired for a significantly longer period.

Comparisons of labor force activity between the health limits work and nonhealth impaired groups revealed significant differences in mean numbers of hours and weeks worked, and weeks out of the labor force. The nonhealth impaired youths worked significantly longer than the health limited youths. The health limited work group was out of the labor force significantly longer than their healthy cohorts. The groups did not differ significantly in mean number of unemployed weeks.

On the whole both health limited work and nonhealth impaired youths reported very positive perceptions of 10 job characteristics. They felt they worked with friendly co-workers, had competent supervision and worked in pleasant surroundings. Comparison of the job characteristics indicated health limited work youths perceived their jobs as more dangerous than nonhealth impaired youths.

The groups did not differ significantly on future employment aspirations or levels of job satisfaction. Although the health prevents work group were not employed in 1979, 80 percent desired to be in the labor force at age 35.

Comparing self-esteem scores, the health prevents work group mean score was significantly lower than the two employed groups. Stepwise regression revealed a positive relationship between number of weeks worked and self esteem scores.

Implications

Those health impaired individuals who are most likely to be in the labor force had health limitations more than twice as long as those who health prevented them from working. Possibly a major portion of those with acute limitations who are out of the labor force are out only temporarily while they recover from their impairment. That temporary impairment could include pregnancy, trauma from an accident, or some disease. More study or investigation of causes of impairment is needed to make conclusions about the work-related effects of long/short term unemployment status.

The desire of health impaired youths to be employed is strong. None of the health prevents work groups were employed, yet 80 percent expressed the desire to be employed by age 35, or in 12-17 years. This percentage is higher than the 65 percent of unemployed adults with disabilities who reported in a national survey that they wanted to work (Hiring the handicapped, 1986). An interesting question is why do health impaired youths who are employed work fewer hours each week than the working youths average? Is it due to factors related to the impairment, job safety, job characteristics, or other environmental or personal factors? Time demands on health impaired individuals for routine tasks may make full-time employment impossible.

Environmental barriers such as structures that are inaccessible to mobility impaired people and lack of affordable transportation are often impediments to employment. A recent survey of disabled individuals cited environmental barriers as one of the most pressing concerns (Fawcett, 1986). An environmental issue raised in the present study related to the safety of the job. Health impaired youths were more likely to perceive their work environment as hazardous than nonimpaired youths. Further study is needed to determine what characteristics of the environment pose perceived safety threats to health impaired individuals.

This study supports the findings of Cohn (1978) and Kasl and Cobb, (1979) that unemployment is related to low levels of self-esteem. Youths whose health prevented them from working had significantly lower self-esteem scores than youths who were able to work. Mean self-esteem scores for youths with a health impairment that limited (but did not prevent) their employment were not significantly different from those of the nonhealth impaired group. With the strong desire of health impaired individuals to work and the importance of employment on one's self-esteem, the work situation needs attention. Since the late 1960's, federal laws have been enacted to improve employment opportunties for health impaired individuals. Although much has been done to eliminate existing barriers, this and other research show that employment differences still exist between health impaired and healthy young workers. To erase those differences and achieve equality continued improvements in education, job training, and barrier removal may be necessary.

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FINANCIAL MANAGEMENT PRACTICES INFLUENCING PERCEIVED ADEQUACY OF CONSUMPTION LEVEL AMONG MARRIED STUDENT WIVES

Naheel Jeries, Iowa State University[1]

Abstract

This study was designed to determine the relative importance of budgeting, record keeping, financial preparedness for emergencies, debt-to-income ratio, changes in income and savings assets, and bill payment problems in explaining perceived adequacy of consumption level among student wives. Data were collected from 184 wives in student families living at Iowa State University Housing Community. Multivariate regression was used to analyze the data. The findings indicate that income adequacy, financial preparedness for large emergencies, and bill payment problems were more strongly related to adequacy of consumption level among married students than several other financial management practices.

The American nation, and indeed the world, is faced with the problem of scarce resources. No society has enough resources to satisfy everyone's wants and desires. The scarcity of resources creates the need for allocation decisions and attempts to maximize satisfaction while minimizing one's resource expenditures. Achieving a pattern of consumer spending that provides maximum satisfaction depends on money management practices. Appropriate money management procedures, including budgeting, can become powerful and effective tools in helping individuals and families achieve the things they really want and in freeing them from daily worries and problems of mismanaged money. Money management is a system of planning and implementing based on expected income. The tool for money management is called a budget and the process is called budgeting (Bailard, 1983; Boone and Kurtz, 1985; Leet and Diggers, 1983).

Consumption patterns of consumers reflect income level, tastes, and the prices of goods and services. As these factors change, so do the buying patterns of consumers. American consumers face the 1980's and the 1990's with more buying power and with greater sense of uncertainty. The combination of more buying power and more uncertainty highlights the need for developing financial management skills to allocate efficiently the available resources among the various categories of goods and services in seeking to attain the desired standard of living (Leet and Diggers, 1983).

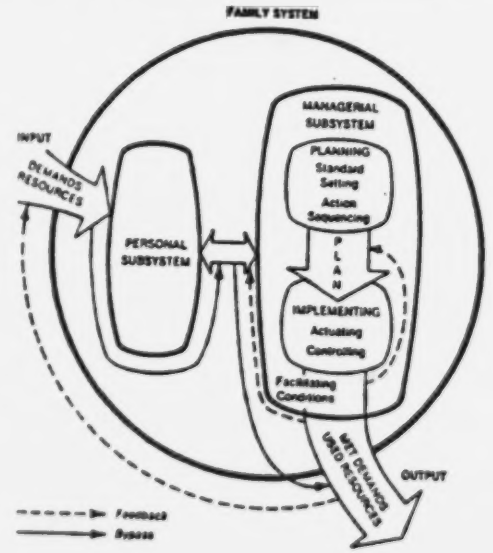
Young married students typically have limited financial resources and low levels of income. Because of these limiting conditions, sound financial management techniques can serve as effective tools in helping married students attain their financial goals and the standard of living they desire to achieve. The purpose of this study is to examine the relationship between financial management practices and the perceived adequacy of consumption level among student wives.

Conceptual Framework

Deacon and Firebaugh (1981) developed a systems framework for home management to provide a conceptual tool for understanding the inter-action between the personal and the managerial subsystems of the family. The personal sub-system deals with interpersonal relations and personal development of the family members. The managerial subsystem deals with the process of planning and implementing available resources to meet the goals of the total system.

Figure 1 (Deacon and Firebaugh 1981, p. 31) shows that the major components of the managerial system are "inputs," "throughputs," and "outputs." Managerial inputs include demands (goals and events) and resources. Managerial throughputs consist of planning and implementing. Planning is defined as a series of decisions concerning standards and/or sequences of action (Deacon and Firebaugh 1981, p. 229). Implementing is defined as actuating standards and sequences and consistently controlling the action (Deacon and Firebaugh, p. 228). Outputs of the managerial system are referred to as met demands and used resources which result from transformation in the managerial system in response to demands and resource inputs (Deacon and Firebaugh 1981, p. 35).

FIGURE 1. Family System with Managerial Subsystem Emphasis



[1] Associate Professor, Department of Family Environment

In the present study, the changes in income and savings assets of married students are considered as inputs. Budgeting, record keeping, debt-to-income ratio and bill payment problems are considered as throughputs. Financial preparedness for emergencies, achievement of financial goals, attainment of the desired standard of living and consumption level are considered as outputs.

Related Research

Consumption is defined by Davis (1945) as the commodities, their uses, and services consumed; and living is defined as consumption plus other factors such as working conditions, freedoms, and atmosphere. According to Davis, the level of consumption is an aggregate of food, fuel, and other nondurable goods, and the services of durable goods and human beings used by an individual or group, in a given period of time; while the consumption standard is the consumption level which an individual or group earnestly strives to attain, to maintain if once attained, and to regain if lost.

The level of living is defined by Davis as the reality actually experienced, enjoyed or suffered by an individual or group. It is made up of a complex combination of consumption, working conditions, possessions, freedoms, and atmosphere, and the balance and harmony among them; while the standard of living is defined as the level of living an individual or group earnestly seeks and strives to attain.

Satisfaction with the consumption level appears to be the correspondence between the actual and the expected or a comparison between the actual situation and some ideal situation based on one's standards of consumption. The relationship between the level of consumption and the standard of consumption is of profound significance. It is the discrepancy or the margin between the standard and the content (or level) of consumption that gives incentives for the individual or group to work for a better content of living.

Mullis and Schnittgrund (1982) and Schnittgrund (1983) studied money management practices of 199 low-income families in Phoenix, Arizona. They found that families with spending plans were more satisfied with their financial management practices than those without spending plans. Heck (1983) compared managerial behavior of 195 households and found that planners were more satisfied than non-planners with their families output level.

Easterlin (1973) examined the relationship between income and happiness in nineteen developed and less-developed countries. Easterlin's major conclusion was that in all societies, more money for the individual means more happiness, however, raising the income of all does not increase the happiness of all. Duncan (1975) attempted to determine the relationship between income and satisfaction with the level of living. His findings indicated that although real income of the sample in his study had risen over time, satisfaction with the level of living declined.

Jackson and Beutler (1982) assessed the relationship between strategies used by a family to increase or reallocate financial resources over the life cycle and the family's perception of its level of consumption. They indicated that savings and non-contributory transfer income were negatively related to perception of consumption, while employment of other family members, home production and investment income were positively related to the family's perception of its level of consumption.

Ormsby and Fairchild (1985) attempted to explore the perceived adequacy of family income and selected management practices in Mexico. The results showed that over 80% of the Mexican families believed that their income was adequate for food, clothing, transportation, health care, education, and charity offerings.

Schaninger and Buss (1986) examined the differences in consumption between happily married and divorced couples. They found that happily married couples spent more for recreational vehicles, appliances, and home purchases, and, divorced couples spent more for stereos, color TV's, and living-room furniture.

The review of literature indicates that studies on consumption have focused on income, money management practices, and differences in consumption between happily married and divorced couples. The present study was designed to examine such aspects of financial management as relative importance of budgeting, record keeping, financial preparedness for emergencies, debt-to-income ratio, changes in income and savings assets and bill payment problems in explaining perceived adequacy of consumption level among married students.

Methodology

A random sample of 258 households was drawn from the 1285 student families in the Iowa State University Married Student Housing Community. An interviewer delivered a questionnaire on money management techniques to the wife of each couple, explained the procedure for answering it, and picked up the completed questionnaire after three days. A follow-up phone call was made to each wife whose questionnaire was incomplete to obtain missing information. Ten percent of the households could not be reached and an additional six percent refused or failed to return the questionnaire. Of the remaining eighty-four percent, households were eliminated from the sample if the wife was a foreign student or a single parent. The final sample consisted of 184 wives of married student couples at Iowa State University.

Included in the questionnaire were items which tapped the spouses' satisfaction with various aspects of their financial management techniques, their approach to budgeting and use of credit, their debt load, and their financial preparedness for emergencies. Additional ques-

tions gathered information about decision making and decision implementing patterns of the spouses. Questions about other socioeconomic and demographic characteristics of the spouses were also included.

Variables

The dependent variable, consumption level adequacy was determined by the wife's responses to eight items. The eight items of consumption level adequacy included the wife's perception of the adequacy of the amount of food the family has, the adequacy of the family diet, space, transportation, clothing, medical care, equipment, and recreation. The response categories consisted of "Very Insufficient," "Usually Insufficient," "Sometimes Insufficient," "Usually Sufficient," and "Very Sufficient," coded 1 to five. The responses to the eight items were summed to form consumption level adequacy scores which ranged from 8 to 40.

The independent variables in this study were financial management characteristics. On the basis of previous research, 13 items were selected to represent financial management and were divided into six categories for purposes of analysis. The categories and the number of variables in each category were: usefulness of budgeting, 2; financial preparedness, 3; changes in income and savings assets, 2; budgeting, 2; record keeping, 2; and debt-to-income ratio and bill payment problems, 2. See Table 1 for definition and coding of the 13 independent variables.

TABLE 1. Items Used in This Study

Item	Coding of Item
Follow a written budget	1= never 2= seldom 3= sometime 4= often 5= always
Follow a mental budget	1= never 2= seldom 3= sometime 4= often 5= always
Record keeping of all household expenditures	1= never 2= seldom 3= sometime 4= often 5= always
Record keeping of cancelled checks	1= never 2= seldom 3= sometime 4= often 5= always
Percentage of income to debts	1= less than 1-% 2= 10-15% 3= 16-25% 4= 26-50% 5= 51% or more
Income adequacy	1= not adequate 2= can meet necessities 3= can afford some things 4= can afford everything 5= can afford everything and save
Changes in future income	1= lower than this year 2= the same as this year 3= higher than this year 4= much higher than this year
Changes in savings assets	1= lower than this year 2= the same as last year 3= more than last year 4= much more than last year
Bill payment problems	1= got behind 2= got behind, & and made larger payments 3= made larger & more frequent payments 4= payments were made on time
Financial preparedness for small emergencies	1= very unprepared 2= unprepared 3= somewhat prepared 4= prepared 5= very prepared
Financial preparedness for large emergencies	1= very unprepared 2= unprepared 3= somewhat prepared 4= prepared 5= very prepared
Budget helped achieve goals	1= did not help 2= helped a little 3= helped somewhat 4= helped a lot
Budget helped attain standard of living	1= did not help 2= helped a little 3= helped somewhat 4= helped a lot

Method of Analysis

Multivariate regression was used to analyze the data. Beta coefficients were used to ana-

lyze the relative importance of each independent variable in the regression procedure. Items in the preliminary regressions that significantly contributed to regression equations at or beyond the .10 level of statistical significance were included in the final comprehensive regression analysis. The coefficient of multiple determination (R2) was used to assess the proportion of variance in the dependent variable explained by all the independent variables.

Results and Discussion

Preliminary Regressions--Usefulness of Budgeting.

The usefulness of budgeting variables reflected the use of budgeting to achieve the family financial goals and to attain the desired standard of living. The use of a budget helped attain the desired standard of living was significant at the .05 level in the preliminary regression and was included in the final regression.

Preliminary Regression--Financial Preparedness.

The financial preparedness variables reflected the degree of financial preparedness of the families for small and large emergencies, and income adequacy. Two variables, financial preparedness for large emergencies and income adequacy, met the criteria of statistical significance for inclusion in the final regression model. Both variables were significant at the .01 level in the preliminary regression.

Preliminary Regression--Changes in Income and Savings Assets.

The two variables included in the preliminary regression were changes in income and changes in savings assets. Changes in savings assets met the criteria for inclusion in the final regression model and was significant at the .05 level in the preliminary regression.

Preliminary Regression--Budgeting.

The budgeting variables reflected the use of a written or a mental budget by the families. Both variables had a t statistic of less than 1.64 in the preliminary regression and were not included in the final regression.

Preliminary Regression--Record Keeping.

The record keeping variables included record keeping of all household expenditures and record keeping of cancelled checks. The two variables did not meet the criteria for inclusion in the final regression model.

Preliminary Regression--Debt-To-Income Ratio and Bill Payment Problems.

The two variables included in the preliminary regression were debt-to-income ratio and bill payment problems. Bill payment problems met the criteria of statistical significance for inclusion in the final regression model and was significant at the .05 level in the preliminary regression.

Final Regression

The results of the regression analysis of the combined items are shown in Table 2. The coefficient of multiple determination (R2) for the sample of student wives was .28, a finding significant beyond the .01 level. As a group these items indicate that the financial management practices explain 28 percent of the variance in consumption level adequacy.

Table 2. Final Regression of Financial Management Practices Influencing Adequacy of Consumption Level Among Married Students

Statement	Beta Value	t Value	p Value
Usefulness of Budgeting			
Budget helped attain standard of living	.07	.92	.36
Financial Preparedness			
Income adequacy	.35	4.43	.00
Financial preparedness for large emergencies	.17	2.13	.04
Debt-To-Income Ratio & Bill Payment Problems			
Bill payment problems	-.16	2.14	.03
Changes in Income & Savings Assets			
Changes in savings assets	.04	.57	.56
R2		.28**	

** Significant at the .01 level

With respect to the individual items, income adequacy accounted for more of the difference in consumption level adequacy than any of the other items. The beta for this item, .35, was significant beyond the .00001 level. This finding suggests that the most important component of consumption level adequacy for the sample of married students is the perception that the family income is adequate, and therefore, the family members can afford to buy everything they want and still save money.

Financial preparedness for large emergencies was significant at the .05 level and was positively related to consumption level adequacy. The beta for this item was .17 ($p<.04$). This finding indicates that families who are financially prepared to meet large unexpected emergencies are more likely to perceive their consumption level as being adequate than families who are financially unprepared to meet large unexpected emergencies.

Bill payment problems was significant at the .05 level and was negatively related to consumption level adequacy. The beta for this item was -.16 ($p<.03$). It is not surprising that families who are unable to meet debt payments as scheduled also perceive the family consumption level as being inadequate. This finding indicates that

being able to meet debt payments as scheduled may provide a more secure base for financial management; and, thus, increasing levels of satisfaction with the family consumption level.

Variables that were not significant in the final regression and thus, contributing least to consumption level were the budget helped attain the desired standard of living (beta= .07, p<.36), and changes in savings assets (beta= .04, p<.56). These findings indicate that the attainment of the standard of living through budgeting, and changes in savings assets may be less important to overall consumption level adequacy than having an adequate income and sufficient funds on hand to deal with large unexpected emergencies.

In general, these findings from the combined items regression analysis are consistent with those in other studies. (For instance, Easterlin (1973) found a positive relationship between income and happiness. Easterlin stated that in all societies, more money for the individual means more happiness, however, raising the income for all does not increase the happiness for all.) Jackson and Beutler (1982) found a positive relationship between the family income and family consumption level. Happiness and consumption level adequacy could be considered as output or an outcome of the family managerial system. According to Easterlin and Jackson and Beutler's findings, more money means more access to goods and services, i.e., an adequate level of consumption. Income adequacy, financial preparedness for large emergencies, and the ability to meet debt payments as scheduled could also be considered as an output of the family managerial system. It is more likely that the families in this study will continue financial management practices that give them satisfaction in the future by attaining the financial goals they establish.

Mullis and Schnittgrund (1982), Heck (1983), and Schnittgrund (1983) have reported that families with spending plans were more satisfied with their financial management practices than those without spending plans. The families in the present study who were financially prepared for large emergencies and who were able to meet debt payments as scheduled through the use of a budget (which is a plan for allocating family financial resources) were also those who perceived their consumption level as being adequate.

In conclusion, the purpose of financial management is to obtain the greatest satisfaction from the available resources. Included in such satisfaction is the achievement of the family financial goals. Deacon and Firebaugh's (1981) management model could be used for assessing the effectiveness of family financial management. Goals and resources are inputs to the management system. The throughput function of the management system is to plan and implement actions to achieve family financial goals with the resources at hand. The results of the managerial activity is represented by the outputs of achieved goals and used resources. Financial preparedness for large emergencies and the ability of the families in this study to meet debt payments as scheduled indicate that through utilizing the managerial process a level of satisfaction with the consumption level has been achieved. This satisfaction with financial management outcome (output) may be identified as an accomplishment of these families as a result of their financial behavior, or in other words, an expression of their satisfaction with their consumption level as a result of their financial management techniques.

Conclusions

This study was concerned with consumption level adequacy among married students living at Iowa State University Housing Community. Consumption level adequacy included the wife's response to questions dealing with eight major areas of consumption. The response categories consisted of "Very Insufficient," "Usually Insufficient," "Sometimes Insufficient," "Usually Sufficient," and "Very Sufficient."

Income adequacy was the most important variable contributing to adequacy of consumption level in the final regression model, followed by financial preparedness for large emergencies and bill payment problems. The financial management items collectively explained 28 percent of the variance in the dependent variable, consumption level adequacy.

The findings of this study indicate that families may follow the Deacon and Firebaugh managerial system model as they evaluate the effectiveness of their managerial behavior. This is accomplished by comparing the actual outputs of the family system with the anticipated outcomes in meeting family demands and is indicated by the degree of satisfaction with the family management practices. The more consistent the actual outputs with what was anticipated, the more effective the management system is. It might be anticipated that the greater the effectiveness of the management system, the greater the level of satisfaction with the system. Therefore, it will be important to examine in future research not just factors contributing to consumption level adequacy among married students, but factors among other type of families. In so doing, a picture of the continuities and changes in family management patterns can be identified across the life-span.

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TOWARDS A CONCEPTUAL UNDERSTANDING OF FINANCIAL PROBLEMS: BUILDING ON HUGHES' MODEL OF THE FAMILY IN FINANCIAL CRISIS

Jean M. Lown, Utah State University[1]
Janeen Cook, Utah State University[2]

Abstract

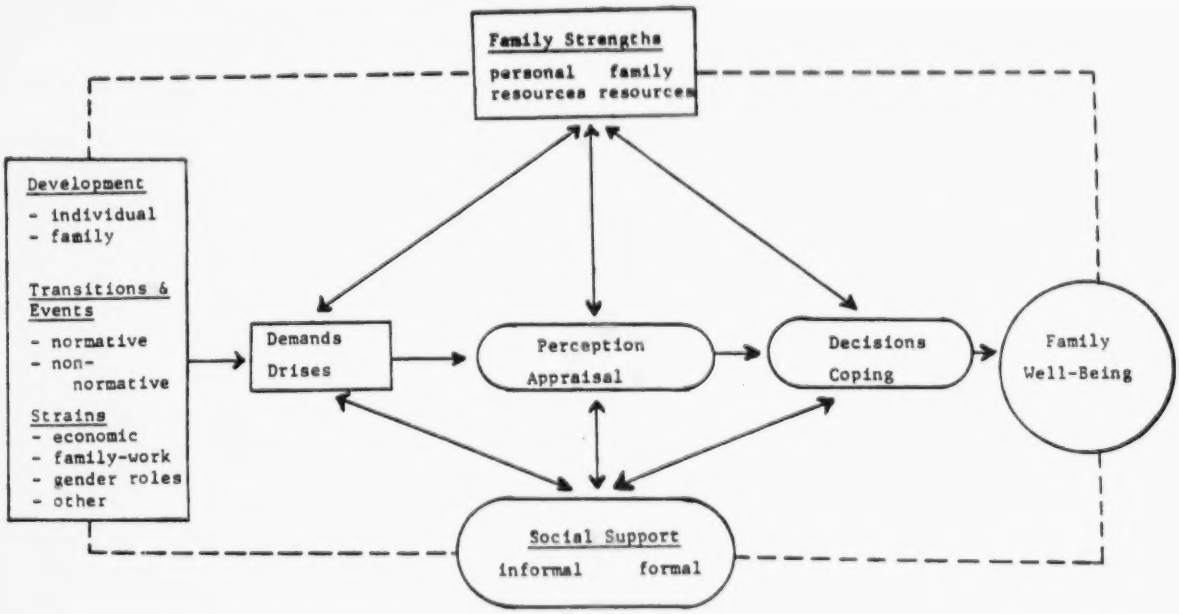
This paper describes a conceptual framework and model of the Family in Financial Crisis developed by Hughes (1974). Application of the conceptual framework and model is illustrated with examples from research. The model can be used as the basis for theory development and research in family financial problems and counseling. The purpose of this paper is to integrate the model with related theory and add to the understanding of family financial problems, to encourage discussion of the model, and to promote development of theory.

Much research on family financial management and crisis has been atheoretical; there is no generally accepted model or theory to guide research, education and counseling (Hogan, 1985). While the field of home economics has been chastised for its dearth of theory, an overemphasis on practical and applied problems and lack of an emphasis on a theoretical basis for solving problems (McCullers, 1984), a similar situation exists relating to family financial problems. While family economists acknowledge the importance of theory, our research does not always reflect this priority. Just as McCullers (1984) emphasized the need to articulate the premises behind home economics research in order to ask the right questions, we need to develop a conceptual foundation in order to understand financial problems.

Theories tell us what we know or think we know, and what we do not know. They help us organize the available facts and formulate the research question. They tell us what information to collect, how to collect it, how to analyze it, how to interpret it, and how to integrate it into the existing framework of knowledge. To embark on a research investigation without theoretical guidance could mean that we would not ask the right question, search for answers in the best way, or know how to interpret the answers we get (McCullers, 1984, p. 531).

While financial counselors must deal with the pressing problems of a heavy client load demanding immediate relief from creditors, the role of the researcher is to provide a theoretical basis for evaluating financial problems and practical advice on applying the theory. A

FIGURE 1. Family Stress Model (Hogan, 1985)



A Stress Model

[1]Assistant Professor

[2]Graduate Student

conceptual framework is a set of ideas or "concepts interrelated by hypothetical and theoretical propositions" (Conant, 1951 p. 32). A model is a pictorial representation of a conceptual framework or theory.

This paper illustrates the use of a conceptual framework and model of the Family in Financial Crisis developed by Hughes (1974). The model has the potential for contributing to theory development and research. The purpose of this paper is to contribute to our understanding of the complexity of family financial problems, and to promote the development of theory.

Family Stress Conceptual Frameworks

Hogan (1985) acknowledged that the family economics and family resource management frameworks can only partly explain family well-being; similarly, family relations frameworks alone are inadequate. However, the combination of frameworks is particularly useful in understanding financial problems. Hogan (1985) emphasized the need for integrating family development, family systems/ecosystems and symbolic interaction frameworks. Hogan's Stress Framework (Figure 1) recognizes that family financial well-being does not exist in a vacuum and the need to consider well-being in the context of other demands. Stressor events can be internal or external, positive or negative. Mediating factors between demands and outcome include: 1) family strengths, 2) social support, 3) perception and appraisal, and 4) decisionmaking and coping. Hogan's Stress Model is presented here because it relates closely to the model of family financial crisis.

Family scholars have developed theory and conducted research to investigate why some families become stronger during a time of crisis while others deteriorate. The ABCX Family Crisis Model developed by Hill (1949) has served as the foundation for this exploration:

> A (the stressor event)—interacting with B (the family's crisis meeting resources)—interacting with C (the definition the family makes of the event)--produce X (the crisis).

The combination of the stressor event, the family's resources and their perception of the severity of the situation determine the degree of vulnerability to crisis. A limitation of the ABCX Model (Hill 1949) is the focus on pre-crisis variables. Based on Hill's original ABCX Model McCubbin and Patterson (1981) developed the Double ABCX Model which adds post-crisis variables to the equation. Family adaptation, coping and perception are key concepts in the Double ABCX Model. Hill's (1949) Roller Coaster Model of Adjustment proposes that individuals or families follow a three-phase course of adjustment to crises: (1) a period of disorganization, (2) a time of recovery, and (3) a new level of organization.

In one of the few research studies of family financial crisis to be based on theory, Ash, O'Neill and Haldeman (1985) examined personal, family and social resources of clients of a credit counseling service and a comparison group of respondents who were not experiencing financial difficulties. The theoretical basis of the study was family crisis theory based on the Double ABCX Model. The Circumplex Model (Olson, Sprenkle, & Russell 1979) and Hill's (1949) Roller Coaster Course of Adjustment Model served to guide the interpretation of the results. The Family Inventory of Resources for Management (FIRM) and the Family Adaptability and Cohesion Evaluation Scales (FACES II) were used to measure resources. Both groups reported a moderate level of resources as measured by FIRM; however, the counseling group scored significantly lower on the Financial Well-Being and Sources of Financial Support subscales. Notably, one-half of the counseling clients reported they were not in a financial crisis, a somewhat surprising finding considing that they were participating in a counseling program and were unable to pay their debts.

Ash, O'Neill and Haldeman (1985) concluded that causes of financial problems include not only lack of financial education and poor management practices, but also problems with inter- and intra-personal characteristics. This study is the best example in the literature of research in financial crisis based on a solid theoretical framework. In addition, the study was notable because it used valid and reliable instruments for data collection.

Sporakowski (1979) discussed the link between financial problems and the concepts of stress and crisis. Financial problems are often intertwined with psychological variables. Sporakowski recommended consultation with, or referral to, a marriage and family therapist. Many others have made a similar recommendation of cross referral or joint practice of psychological and financial counseling. Although programs that combine financial and psychological counseling have been reported (Bagarozzi & Bagarozzi, 1980; DiGulio & Janosik, 1982; Laughlin and Bressler, 1971), they have not been rigorously evaluated and the extent of such cooperation is unknown.

The Family In Financial Crisis

Hughes' (1974) model of The Family in Financial Crisis illustrates the complex nature of financial problems. While financial counselors and researchers have acknowledged this complexity in the literature (Wenzel, 1984; Williams, 1983) it is seldom reflected in research design and analysis. The link between family stress and financial problems is clear but dependence on family stress theory should be reconsidered.

Hughes' (1974) conceptual framework and model of the Family in Financial Crisis is presented here for its potential contribution to research and counseling. Hughes developed the conceptual framework based on general systems theory, a family ecosystem perspective and Hill's (1949) framework of family crisis. She suggested it be used for "organizing, analyzing and interpreting information about families in financial crisis" (p. iv). This model focuses on factors contributing to financial problems. Although it may be unusual to suggest consideration of a model developed more than a decade ago, the

Stress Factors, such as events from the external environment and lack of resources, influence family decision behaviors and may create or intensify a Financial Crisis (Hughes, 1974). Perception and ability to deal with a crisis varies with the family's resources and perception of the situation. Decision behaviors (labeled 1 in the model) determine the Lifestyle and affect how the crisis is perceived and handled. Feedback behaviors are labeled 2. Since a Financial Crisis requires action, feedback is essential to the system. In this model, positive feedback behaviors indicate change and negative feedback behaviors indicate unwillingness to change. Communication is the key link which distributes information and unites the components; it is critical to resolving problems because it enables family members to discuss possible solutions. Lack of communication increases stress and inhibits problem resolution.

Hughes' model is based on a conceptual framework and model of the Family as an Ecosystem which she developed. Although Hughes focused on counseling implications in her thesis, the model offers guidance for researchers as well. Representing critical variables in a conceptual model facilitates understanding of the interrelationships among the family members and their social and physical environment as well as the resources available to the family to overcome the problem. In a simplified manner, the model illustrates the complexity of the family situation and the environment in which it exists. A prime challenge in designing a model is to achieve the best balance of the competing factors of simplicity and completeness. By recognizing the links between family and environment, alternative Internal and External resources may become apparent to the counselor and client. At the same time, the model can help the client and counselor identify why the problem occurred and how to resolve it.

Research has documented that while many financial problems may occur due to divorce, death, disability or desertion, loss of job, cuts in overtime pay, unanticipated medical bills and other External Factors over which the family has little control, the source of financial problems for other families is overspending and over extension in credit, Internal Factors under their control. In addition, combinations of Internal and External Factors frequently contribute to the crisis. The model serves to remind the researcher of the complex interaction of causal factors. Much of the financial counseling research has adopted a narrow perspective on identifying causes of financial problems, focusing on the obvious and easily measured variables while ignoring the contributions of personality, for example. This limited focus is due, at least in part, to relying on counselor and court files for data because it is so difficult to secure participation of subjects.

Application of Hughes' Model

In her thesis, Hughes (1974) illustrated the application of the model using a case study of a wage earner plan family. Thus, the model lacks empirical verification. The next section of this paper discusses how previous research and writing support the validity of the model. This discussion is not proposed as a substitute for an empirical test but rather to illustrate how the model fits research findings.

Much of the research on families with financial problems focused on readily measured variables such as demographics, debt-to-income ratios, and financial management knowledge. While these studies were valuable in providing a basic understanding of financial problems, it is time for a more sophisticated conceptual approach. Perhaps the best example of theory based research was a study by Ash, O'Neill and Haldeman (1985) which emphasized the need to expand the focus of financial counseling beyond the realm of finances to incorporate human behavior, the family, and its environment. Ash, O'Neill and Haldeman (1985) also recommended that researchers investigate the factors that influence client perception of when the crisis is under control. The Hughes' model incorporates this broad perspective.

This model could help researchers explore some of the reasons why some clients, as found in the Ash, O'Neill and Haldeman (1985) study, perceived themselves in crisis while others did not consider their situation as such. Part of the answer may lie in the time frame since the initial crisis. Clients who can see the proverbial light at the end of the tunnel may perceive that the crisis is over. At the same time, clients that have just begun the counseling process and are free of debtor harassment (External Factor) for the first time in months, and are dealing with a capable, reassuring counselor (Resource) may perceive that they are not in crisis even though they face years of austere debt repayment. Client perception of the situation is one of the crucial variables which fits under Internal Factors in the model. Previous studies (i.e., Varga, 1977) suggest that Internal Factors are a fruitful area for further research.

Based on extensive counseling experience, Feldman (1976) identified four categories of financial problems: poor money management, environmental factors such as loss or reduction in income, a crisis beyond the control of the family such as death or serious illness, and personality difficulties. Referring to the Hughes model, poor money management would fit in the category of Internal Factors, environmental factors and death or serious illness are External Factors and personality characteristics are Internal. Simple identification of where factors fit in the model is not the primary objective, however; understanding the interplay of complex factors is the value of the model. Although it is convenient to be able to categorize the causes of financial distress, rarely are client problems simple. By visualizing how a client's situation fits the model, researchers and counselors can identify potentially significant variables. For example, loss of a job affects Lifestyle and may result in interpersonal problems (Internal Factors) related to loss of self-esteem and is likely to trigger stress within the family. Just as stress contributes to financial crisis, the opposite can occur so the model should be revised to show

model provides insight into theoretical relationships between the family and its environment. Although the model needs to be refined, it can contribute to a conceptual understanding of family financial problems.

Conceptual Framework

Briefly, the conceptual framework of the Family as an Ecosystem was developed from general systems theory to be used by counselors to identify the sources of family financial problems and areas of family interaction and management in need of change. Hughes suggested that counselors could use the framework to plan intervention strategies and to help the family understand their situation.

According to Hughes (1974), the family exists as a unit which receives information from the physical and social environment which facilitates the decision making process. Communication develops from information when there is shared understanding during learning and growth. Feedback is a crucial component of learning and growth; positive feedback is the result of change and negative feedback contributes to stability. Too much information is considered "noise" which adds to stress and may result in a crisis situation; while no information may result in disorganization or entropy (Hughes, 1974).

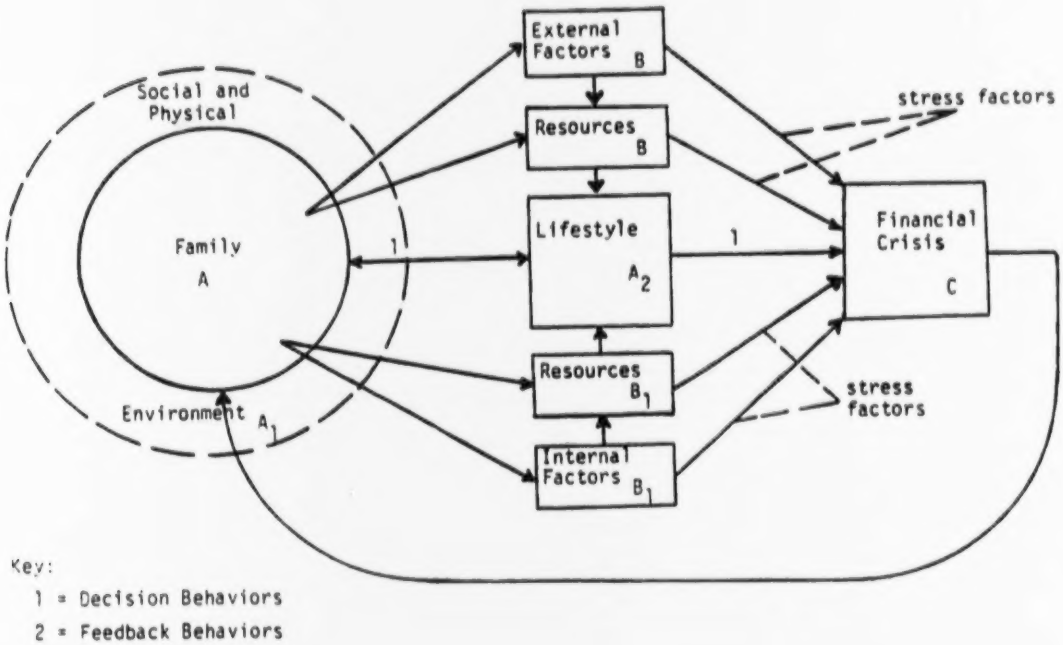
The Model

The Model of the Family in Financial Crisis (Figure 2) considers the Lifestyle of the family, the Internal Factors (over which the family has control) and External Factors (over which the family has no control), and Resources which are present in the Social and Physical Environment (Hughes, 1974). Examples of External Factors are job, housing and transportation opportunities. Internal Factors include personal attributes such as knowledge, skills, and adaptability. Both External and Internal Factors can contribute to financial problems as well as assist in their resolution. Inflation, job loss, death or illness are External Factors while poor decision making and management are Internal Factors which may lead to financial crisis.

Hughes (1974) assumes that the family exists in a physical and social environment over which they have little control. Even though the family may be able to change their environment and exert some control in the long term, this assumption of no control is appropriate in the short term. Families with financial problems typically operate from a short term perspective due to the overwhelming nature and immediacy of their problems.

Lifestyle is central to understanding the relationship between the Financial Crisis and the Family Environment. Resources (human or non-human) are present in the Physical and Social Environment and contribute to the family Lifestyle. Families vary in the availability and willingness to use resources. Lifestyle encompasses the level and standard of living of the family, their economic values, goals, and income (Hughes, 1974).

FIGURE 2. The Family in Financial Crisis (Hughes, 1974)



this reciprocal relationship (arrows pointing in both directions).

One of the challenges facing financial counselors is the retention of clients; Wright (1978) reported that 63% of clients of one debt counseling service failed to complete the program. Since studies typically report on clients who completed programs, we know little about those who drop out. These clients may be less motivated, under more stress or victims of multiple misfortunes and thus unable to cope with their situation. While the model does not offer an answer to this problem, the elements of the model suggest research variables to investigate with respect to who succeeds and who fails other than the obvious demographic variables and debt ratios.

In a study designed to identify factors predicting successful completion of credit counseling, Varga (1977) concluded that intangible psychological factors may be as important in predicting success as the readily measured demographic variables which she studied. Hughes' discussion of Internal Factors includes personality variables. Although Hughes did not discuss the role of attitudes, Caffrey and Capel (1969) demonstrated the importance of these Internal Factors in the use of credit. Obviously, the interaction effects of multiple variables should be studied as well.

Summary and Conclusions

This paper reviewed Hughes' (1974) model of The Family in Financial Crisis and recommended the use and refinement of the model in future research. The primary value of the model is to enable the researcher to visualize the complex nature of financial problems. Since Hughes simply illustrated the applicability of the model with a case study of a family with financial problems, further validation of the model is essential. Although developed for use by financial counselors, the model provides a framework and guidance for the researcher as well.

The main purpose of this paper was to bring to the attention of researchers a model that can potentially contribute to the development of knowledge and theory. While the emphasis of this paper has been on financial crisis, when used in conjunction with family stress and family resource management theory, the model may enhance our understanding of the factors influencing financial decision making.

Although Hughes' model of The Family in Financial Crisis is not necessarily comprehensive, evaluation of the model can serve as the basis for development of concepts and theories, especially regarding the links between the family economics and the family relations perspectives. One outstanding need in family economics is the development of suitable instruments for assessing the variables that we need to study. But underlying all these needs is the importance of the development of theory. This paper proposes that a rudimentary conceptual framework exists which might serve as the basis for the development of theory relating to families in financial crisis.

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DEVELOPMENT AND APPLICATION OF AN UNDEREMPLOYMENT CLASSIFICATION SYSTEM FOR WOMEN IN TWO-CHILD FAMILIES

Diane Masuo, University of Hawaii at Manoa

Abstract

Underemployment by educational mismatch is predicted to become a serious problem in 1990s. In this exploratory study, a system for classifying women as underemployed or not underemployed was identified. Underemployed wives, compared to not underemployed wives had higher education levels, earned higher wages, lived in regions experiencing lower unemployment rates, and received more help from outside workers and labor-saving devices, but not from spouses. Conclusions suggest a systematic occurrence of underemployment which warrants further study.

Introduction and Background

Underemployment by educational mismatch exists "...when a person's employment is inadequate in relation to specified norms or alternative employment..." (Clogg, 1979, p. 3). United States manpower projections through the 1990s are that underemployment will become a serious problem for a large number of young entrants into the labor force (Berg, Freedman, and Freeman, 1978). As increasing numbers of women in the 18-24 year old cohort complete their college degrees, and smaller numbers of positions become vacated (Berg, Freedman, and Freeman, 1978), many more of these women may find themselves underemployed.

Underemployment is not unique to this younger cohort. Career subordination, where the husband's career takes precedence over the wife's, has been a common theme observed in studies of college women's aspirations (Horner, 1972; Yohalem, 1978). This pattern has also been reported in the dual-career literature among professionally employed women (Radcliffe, 1956; Epstein, 1971; Poloma and Garland, 1971; and Bryson, Bryson, Licht, and Licht, 1976).

Little is known about the magnitude of career subordination among wives, except that it can have negative effects on a wife's personal and professional well-being (Burris 1983). Working wives with children present in the home are potential career subordinators because of the demands that family members place on their time. In 1978 the pool of potential career subordinators with children under age 18 was 16.1 million (U.S. Department of Labor, 1978 Summary).

Market structure and career subordination, however, are not the only manifestations of underemployment. Additional causes of this phenomenon may include: mobility of one spouse, which results in place disutility of the other; preference for a particular job; and marketplace interference - occupational segregation and sex discrimination.

Despite the large number of women who may become underemployed, little is know about them. This study is designed to increase our understanding of the nature and scope of underemployment by educational mismatch among married women with children.

Problem Statement

This exploratory study has two major purposes. First was to develop an objective system identifying women who were underemployed by educational mismatch. Second was to explore the possible correlates of underemployment by examining the economics and managerial resources and constraints of the families.

Under conditions of rational decision making, a wife with children present in the home may base her employment decision on four criteria. They are: (1) relative wife-husband advantage for "market" work, (2) competition in the female labor market, (3) the family's need for child care and other housework, and (4) the degree of assistance from spouse, other workers and labor-saving devices with child care and other household tasks.

By examining how husbands and wives allocate their time to work inside and outside the home, as well as other objective factors relating to employment decisions, one can gain insight into factor associated with underemployment of wives.

Methodology

The source of data for this research was a data base called "An Interstate Comparison of Urban-Rural Families Time Use (NE 113)." Funding for the project came from state Agricultural Experiment Stations, U.S.D.A.'s Research-Science Education Administration and from other state and private sources.

From a population of two-parent two-child families living in rural and urban areas in eleven states, a stratified random sample of 2,100 families were chosen by the NE 113 researchers. Stratification was done by age of the youngest child and by rural and urban residence. This resulted in 21 rural and 21 urban families from each of five age strata in nine of the eleven participating states, plus one rural only and one urban only samples, for a total of 2,100 families.

To correct for sampling bias and to enable generalization to the large population living in the

1 Assistant Professor of Consumer Economics and Family Resources

eleven states, the data were weighted. The weights adjusted for: (1) family size, (2) urban and rural residence, and (3) representativeness of age strata distribution of younger children in two-child families living in the eleven states.

Two survey instruments were used in this study. One was a time diary, charting time use for 19 pre-categorized activities over two 24-hour days. The other was a survey questionnaire administered by trained interviewers. They solicited socio-demographic information on all family members and data concerning the housing environment, the presence of outside help and any unusual family circumstances that prevailed.

Since no questions were asked relative to why women were working at their current job or whether they were fully utilizing their educational backgrounds, an objective classification scheme was devised. A wife was categorized as underemployed if she worked for pay outside the home for at least one hour per week and her education exceeded the median education of comparable female workers holding the same job. If her schooling were equal to or less than the median, she was classified as not underemployed.

Table 1.1 below summarizes the decision-rule used:

Table 1.1 Classification of underemployed and not underemployed women

Occupation Code and Title	CLASSIFICATION: Under-employed %	CLASSIFICATION: Not under-employed %	Female median education for each occupation in March 1978 (years) (education code [a])	Underemployed when schooling exceeds this education code[a]
10 Cleaning service worker	1.97	0.55	11.2 (2)	2
11 Food service worker	.44	4.03	12.1 (3)	3
12 Health service worker	5.23	2.37	12.4 (3)	3
13 Personal service worker	7.63	4.69	12.4 (3)	3
14 Protective service worker	2.14	0.18	12.6 (3)	3
15 Private household worker	14.48	0.68	10.8 (2)	3
20 Laborer	0.85	0.25	12.1 (3)	3
30 Operatives, except transport	2.95	4.33	11.8 (3)	3
31 Transport equipment operative	0.20	0.40	12.4 (3)	3
40 Mechanics and repairers	0.55	0	12.4 (3)	3
41 Metalcraft workers	0.80	0	12.4 (3)	3
42 Carpenters	0.80	0	12.3 (3)	3
43 Other construction craftsmen	3.05	3.12	12.5 (3)	3
50 Secretaries, stenographers, typists, excluding bookkeepers	21.22	14.92	12.7 (4)	4
51 Other clerical workers	14.21	11.77	12.7 (4)	4
60 Sales workers	13.68	7.28	12.6 (4)	4
70[b] Managers & administrators, excluding farm	0	4.90	12.8 (5)	5
71 Farmers & farm managers	0	0.34	12.3 (3)	3
80 Engineers	0	0.02	16.4 (7)	7
81 Physicians, dentists & related practitioners	____	____	18.4 [c] (10)[d]	10
83 Teachers, except college	0	19.76	16.8 [e] (8)	8
84 Engineering and science technicians	0.51	0	13.2 (4)	4
85 Other professional, technical and kindred workers	10.59	8.53	16.2 (7)	7

[a] Education codes 2 = 11 years; 3 = high school diploma; 4 = vocational/technical training; 5 = partial college, no degree; 6 = A.A. degree; 7 = bachelor's degree; 8 = master's degree; 9 = doctorate; 10 = professional degree.

[b] There is no separate code for managers & administrators, excluding farm. Thus "70" was assigned here, since the jobs coded as 70 are managerial and administrative in nature.

[c] No education was listed for women in the BLS special Labor Force Report 225. Thus, schooling for men was substituted.

[d] In addition, since the commonly recognized training for physicians, dentists and related practitioners is a professional degree, a code "10" was assigned here.

was unavailable for those years and therefore would have had to be computed from median data.

Findings

Sample

Of 889 employed wives, 281 were classified as underemployed and 608 as not underemployed. As a group, underemployed wives were younger, better educated and better paid than not underemployed wives, even though the former worked fewer hours per week outside the home. Underemployed wives tended to have younger, better educated husbands than their counterparts, and had higher family incomes (see Table 1.2). The groups were similar in the modal occupation of the wives. Approximately 36 percent of the underemployed wives and 37 per cent of the not underemployed worked as clerical workers.

Table 1.3 summarizes child care and other housework time use:

Table 1.3 Weekly hours and proportion of time spent by underemployed and not underemployed wives and their husbands on child care and other housework (11 states, weighted)

	Underemployed-wife families				Not underemployed-wife families			
Activity	Mean	S.D.	Total Hours	% of Total	Mean	S.D.	Total Hours	% of Total
Child care:			14.18				9.58	
Wives	9.96	11.10		70.2%	6.90	7.91		72.0%
Husbands	4.22	8.80		29.8%	2.68	4.03		28.0%
				100.0%				100.0%
Other housework:			39.10				36.18	
Wives	32.78	16.90		83.7%	30.55	14.48		84.4%
Husbands	6.40	7.17		16.3%	5.63	6.45		15.6%
TOTAL N=	308.9			100.0%	N=636.4			100.0%

In terms of the aforementioned criteria used by wives to make employment decisions, the following characteristics were observed. Underemployed wives contributed more than their counterparts towards family income ($t=21.06$, $p<0.000$) (see Table 1.2); spent more time on child care ($t=25.73$, $p<0.0001$) and other housework ($t=60.9$, $p<0.0001$) (see Table 1.3); and had more help from outside workers ($t=3.54$, $p<0.0004$) and from labor-saving devices ($t=4.35$, $p<0.0001$) (see Table 1.4) but not from their spouses (child care: $X^2=7.772$, $df=5$, $p<0.169$; other housework: $X^2=1.4$, $df=2$, $p<0.0496$.)

Underemployed wives, by virtue of their higher levels of training, have more opportunities for higher pay and more favorable jobs in the labor market than their counterparts. Thus it is reasonable to expect higher wages among the underemployed. The finding that underemployed wives work, on the average, fewer hours per week than not underemployed wives, may be evidence of the former's ability to secure those 'better' positions, even within the clerical ranks.

The finding that underemployed wives spend more time on child care and other housework is consistent with studies comparing household production time with levels of education. With regard to child care, Leibowitz (1972) and Hill and Stafford (1974) found that more highly educated women, in spite of the higher price of their time, spent more time on child care than less educated women, within a lifetime income group. This phenomenon can be explained by two factors which increase demand for time in child care. First is the fact that educated women tend to have higher standards for child care, relative to other household tasks (Leibowitz, 1972). Additionally, as a result of their higher standards, educated wives may find that other workers are unsatisfactory child care substitutes.

Second is the tendency for higher educated women to be in high-income families and for these families to prefer spending more time on child care and housework. There is some support by Stafford and Hill (1974) that time inputs for other housework rises slightly at the higher socioeconomic (SES) level among families with preschool children. In their study, SES was measured by the husband's occupation, which in turn is reflective of his age, education and years in the labor force. Since more time spent on an activity does not necessarily mean that a person values that activity more, additional research is needed to determine if underemployed wives have a preference for time-intensive over goods-intensive child care and other housework.

Table 1.1 Classification of underemployed and not underemployed women (continued)

[e] Table J in the BLS Special Labor Force Report 225 appears to contain a calculation error for the median years of schooling for female teachers except college. The reported figure was 16.8. The correct number should be 15.8. However, to be conservative in classifying underemployed wives, the tabled figure, 16.8 years was used.

Source: U.S. Department of Labor, Bureau of Labor Statistics. Special Labor force Report 225. Educational Attainment of Workers-Some Trends from 1973 to 1978. Washington, D.C.: U.S. Government Printing office, pp. A-17 - A-18.

Table 1.2 compares the demographic profiles of both groups:

Table 1.2 Age, education and wage rate of underemployed and not underemployed wives and their husbands (11 states, unweighted)

Factor	Underemployed-wife families (mean)		Not underemployed wife families (mean)	
Age	wife	34.1 years	wife	34.8 years
	husband	36.3 years	husband	37.0 years
Education	wife	5.6 (partial wife college, no degree)	wife	4.3 (vocational or technical degree)
	husband	5.8 (partial husband college, no degree)	husband	4.8 (vocational or technical
Wage[a]	wife	$2.61/hour	wife	$2.50/hour
	husband	$3.38/hour	husband	$4.43/hour
Family Income	14.4 = $50,000		13.7 $25,000 - 49,999	
Usual hours worked/week	wife	28.3 hours/week	wife	29.9 hours/week
	husband	45.8 hours/week	husband	47.2 hours/week

[a] Mean wage for husbands is skewed by high salaries.

The use of an objective system introduces potential error into the classification system. The possible reasons for making classification errors (classifying wives as underemployed when they are not) are recognized. First, individuals may require different levels of education in order to accomplish the same job successfully. Second, not all levels of education are "equal" because of the source. Third, the median education level for a particular job category may not be accurate for each specific job which falls into that category. Fourth, a low-skill job may be the first available job on the career ladder, and not be viewed by society as "underemployment" for beginning workers. Fifth, education and occupation were coded in categories, rather than as continuous variables. Thus, there is no way to identify schooling differences within one category, majors for college degrees, or specific job titles within an occupational group. In light of the high probability for error, conservative matches were made whenever possible with the data available.

An additional bias is recognized in educational mismatch procedures. Since it is easier to find and accept a job at a lesser education requirement than vice versa, all other factors held constant, there will be more variability at higher levels of education. This is a necessary bias, however, because of the concept of educational mismatch and is not unique to this particular classification scheme. Nevertheless, it becomes important when attempting to separate the effect of education itself from other factors that may distinguish these two groups.

Median, rather than mean education was used as the standard because it is more representative of the higher levels of education held by most Americans in 1977-78, when the data were collected. Also, median education was a more accurate statistic in 1977 and 1978 because it could be obtained directly from census data, whereas mean education

Table 1.4 Number of labor-saving devices and weekly hours spent by outside workers on child care and other housework in underemployed and not underemployed-wife families (11 states, weighted)

	Underemployed-wife families	Not underemployed-wife families	
	(mean)	(mean)	
Number of labor-saving devices	5.9	5.5	t=4.35
S.D.	1.28	1.65	p<.0001
Outside worker hours/week	1.01	0.48	t=3.54
S.D.	7.93	3.95	p<.0004
TOTAL	N=308.90	N=636.40	

The finding of higher levels of consumption among underemployed-wife families ($t = 4.35$, $p<.0001$) is consistent with Becker's (1965) "Theory of Time Allocation." As wages increase, consumption of normal goods also increases. Thus, one would expect the higher paid underemployed-wife families to substitute goods intensive commodities such as labor-saving devices for more time spent on time-intensive child care and other housework.

The presence of more hired help ($t = 3.54$, $p<.0004$) may be explained by the fact that underemployed-wife families can better afford them. Support for this finding comes from studies of dual earner families (Blood and Wolfe, 1960 and Safilios-Rothschild, 1970) where it was observed that higher income dual earner families were more likely to hire outside domestic help. These studies focused on the presence or absence of outside help, however, not the extent of help.

Walker and Woods (1976), using time use data, found no significant relationship between family income and the extent to which families use outside help. The discrepancy between the two types of studies may be due to thew way in which outside help was measured and the composition of the sample. In the dual earner studies, the mere presence or absence of help was measured, whereas, in the time use study, the actual number of hours spent by outside workers on housework was reported. With respect to the sample, the time use study included all family types. Therefore it was less similar to the select group of employed wives in this research than were the dual-earner studies.

Implications

The results from this study suggest that wives who are underemployed by educational mismatch do not conform to an economic model of job selection, where rational decision making is assumed. Instead, these wives operate as if they had a relative advantage for household work rather than for market work. Underemployed wives spent more time on child care and other household work than not underemployed wives, despite the fact that on the average, the former earned a higher wage than the latter.

Reasons underlying the greater time spent by underemployed wives on child care and other housework than their counterparts cannot be determined by this study. Future research should note patterns of time allocation for child care and other housework between the groups and observe how preference for underemployment, ages of children and standards for child care and housework mediate preferences for goods-intensive as versus time-intensive behavior.

From a methodological standpoint, this study has made two contributions. First was the development of an objective method for identifying wives who are underemployed by educational mismatch. Second was the examination of possible personal, family and employment correlates of underemployment. Despite the conservative rules used to classify wives as underemployed, there still were statistically significant differences between underemployed and not underemployed wives on a number of factors. These factors need to be considered in future studies of the determinants and consequences of voluntary versus involuntary forms of underemployment among married women.

Clearly there is much more to be learned about underemployment by educational mismatch. Obvious unanswered questions include: (1) Is there a systematic occurrence of underemployment in the United States? (2) Is underemployment a temporary coping strategy used by wives until their children become more self-sufficient? (3) Are men and women being forced into underemployment because of structural problems in the labor market? (4) Are there gender differences with respect to underemployment? and (5) How does spousal underemployment affect perceived marital satisfaction and quality of life?

With answers to these questions can come additional knowledge which can be used by wives, practitioners, researchers and public policy makers for personal or professional purposes. Wives may want to consider underemployment as a means of balancing the demands of housework with paid work. Practitioners may be better able to provide decision models concerning the timing of marriage and the balancing of the demands of marriage, children and work. Finally, public policy makers may be better able to support policies which allow for more time flexibility in employment at all levels. After all, how long can we as a society afford not to use the full potential of our human capital?

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FUTURE OF RETIREMENT: THE BABY BOOM GENERATION

Colleen K. Mileham[1]

Abstract

What will be the future of retirement for the "baby boom" generation? A multitude of factors influence future projections. Demographic changes establish reference points for making predictions and offer insight into the future of retirement in the 21st century. The purpose of this paper is to examine demographic and labor force trends and the potential effects of these trends on lengthening labor force participation. More specifically it identifies questions and concerns in an attempt to stimulate discussion and explore strategies in planning for retirement of the "baby boom" generation.

Introduction

During this century increased life expectancy and changing social and work patterns have contributed to significant changes in the amount of time allocated to education, work and retirement. Children are spending more time in school, men and women in their middle years are spending more time in work, and older people have experienced a substantial increase in retirement years.

Retirement is now viewed as an institution rather than a luxury. Increasing numbers of older people are entering retirement well before age 65. A 1978 national survey of American attitudes toward retirement found that the median retirement age of two-thirds of the sampled retirees was 60.6 years (U. S. Senate Committee on Aging, 1986; Rosen & Jerdee, 1986).

Some believe early retirement has become a permanent part of the American economy. However, a multitude of factors influence an individual's decision to withdraw from the labor force before age 65, and any combination of these factors may change the retirement process at a given time. The labor force needs and the unemployment rate, the extent of social security benefits, the availability of private pension plans, the tax structure and inflation rate, and the difference between pre- and post-retirement income all influence the retirement decision. Other factors such as job satisfaction, job discrimination, ill health or disability, and a desire for leisure, although not directly economic, also impact this important decision. The complexity of investigating the combination of all these factors is beyond the scope of this paper. However, demographic changes establish reference points for making predictions and offer insight into the future of retirement in the 21st century.

Therefore, the purpose of this paper is to examine demographic and labor force trends and the potential effects of these trends on lengthening labor force participation. More specifically it identifies questions and concerns in an attempt to stimulate discussion and explore strategies in planning for retirement of the "baby boom" generation.

[1]Graduate Student, Family Resource Management, Oregon State University

Demographic Changes

Life Expectancy

The United States population is getting progressively older. It is estimated that the 65 and over population will grow 4 1/2 times as fast as the rest of the population between now and 2050 (Pitts, 1986). This demographic shift, caused by the large number of "baby boomers" born between 1946 and 1964, low-fertility rates, and unprecedented life expectancy, may have a more profound effect on society than any other trend (Rones, 1980).

Life expectancy at birth and at age 65 is projected to increase over the next three decades (Table 1). In 1982 men's life expectancy at birth was 70 years with an additional 14 years added for people reaching age 65. For women, life expectancy was 78 years with an additional 19 years added at age 65. Men born in the year 2010, however, may expect to live 73 years plus 16 additional years if they reach age 65. Similarly, women's life expectancy, if born in 2010, is predicted to increase to 82 years with an expectation of adding 22 years for those individuals living beyond age 65 (Morrison, 1983).

TABLE 1. Projected Life Expectancy and Median Age for 1982, 2000, 2010, and 2030, by Sex

Demographic Trends	1982	2000	2010	2030
Life expectancy (in years)				
At birth:				
Men	69.8	72.9	73.4	74.2
Women	77.7	81.1	81.6	82.6
At age 65:				
Men	84.1	88.7	89.5	90.9
Women	96.4	102.2	103.2	105.0
Median age (in years)	30.7	35.5	36.6	38.0

Resource: Morrison, M. H. (1983).

Changes in Median Age

Median age of the population also continues to increase. In 1982 the Bureau of the Census estimated the median age to be 31 years compared to 29 years in 1976 (Table 1). More than 1 in 5 (48 million) were 55 and over, and of those, 26 million were 65 and older.

The population 55 and over is expected to increase by 70 million by 2010, representing approximately 1 in 4 persons. The median age will have increased to approximately 37 years of age. By 2030, 30 percent of the population will be age 55 or older, with 40 percent reaching age 75, and the median age projected to be 38 years (Table 1).

Another striking trend occurring between now and the year 2000 is the decline in the 18-29 age range resulting in 8.4 million fewer persons in this age group. However, a reverse pattern is projected for prime-aged persons (35 to 54 years) with an increase of 7 percent. Consequently, between 2010 and 2030, a large increase in the number and proportion of older persons (over 55) and a stabilization of younger and prime-aged groups is expected (Morrison, 1983).

Clearly the trend toward an aged population will significantly impact the ratio of working to nonworking people. Presently, the ratio is 3.4 working persons for each retired elderly; however, by 2030 the rate is expected to be 2 to 1 (Hendricks & Storey, 1982; Longman, 1985). The decrease in the ratio of working to nonworking population also means a decline in the number of workers per Social Security beneficiary thus placing an added economic burden on the younger population. Therefore, adjustments in retirement programs may be necessary if retirement benefits comparable to those of today are to be maintained.

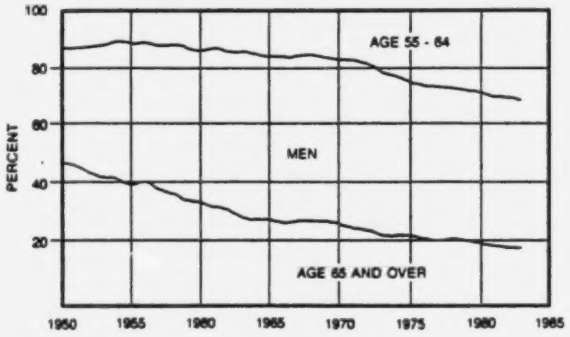
Labor Force Participation

Declining labor force participation of the elderly began during the 1960s when coverage under Social Security increased dramatically, mandatory retirement became prevalent, rapid economic growth and a burgeoning population of young workers encouraged early retirement (Storey, 1980). These trends made it feasible for government and private business to adopt policies that encouraged the early retirement of older workers. However, considering demographic changes projected for the 21st century, is the trend toward reduced labor force participation by older workers realistic for the next 15 years and beyond? According to Morrison (1983), there are two basic ways the age composition of the labor force can change: first, through demographic changes in birth or mortality rates, and second, through labor force participation.

Shifts in Labor Force Participation

Labor force participation of older workers has declined over the past 30 years, a trend which is predicted to continue through the year 2000 (U. S. Senate Committee on Aging, 1986). This can be attributed to the large prime-aged group of workers, the solvency of Social Security, and the existence of age discrimination. In 1950, 90 percent of men age 55-64 and 50 percent over 65 were still in the labor force. By 1984, labor force participation of men age 55-64 had declined to 75 percent and participation by men age 65 and over had declined to 16.3 percent (Figure 1).

FIGURE 1. Labor Force Participation of Older Men, 1950-1983

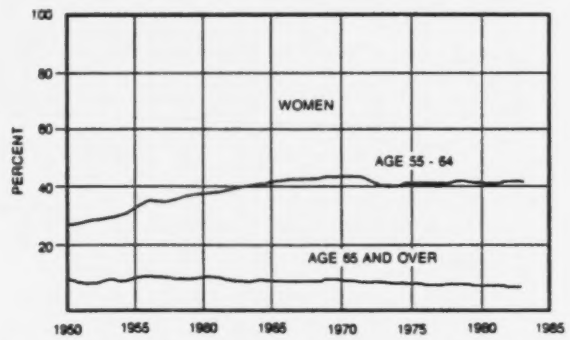


Data Source: U. S. Bureau of the Census and Bureau of Labor Statistics
Resource: U. S. Senate Committee on Aging (1986).

A number of factors may account for this decline in male labor force participation. The decline reflects an increase in voluntary early retirement due to eligibility for Social Security and other pension plans, increase in disability retirements as a result of labor intensive jobs or health-related work environments, pressure from employers or fellow employees, withdrawal due to age discrimination in hiring, and a decline in jobs for which little education and skills were required.

Labor force participation of women has not varied as extensively (Figure 2). Pre-retirement age women, 55-64 years, have increasingly joined the work force. In 1950, 27 percent of the women in this age group were employed and by 1984 the proportion rose to 42 percent. For women over the age of 65, 10 percent were employed in 1950 with the 1984 rate declining to 7.5 percent. These statistics reflect the overall increase of labor force participation among women in general as well as the decrease in male participation (U. S. Senate Committee on Aging, 1986).

FIGURE 2. Labor Force Participation of Older Women - 1950-1983



Data Source: U. S. Bureau of the Census and Bureau of Labor Statistics.
Resource: U. S. Senate Committee on Aging (1986).

Projected Labor Force Participation

Projections indicate the composition of the labor force will significantly change between now and the year 2000. It is projected that the labor force will be composed of 131 million peo-ple, a 22 percent increase over the early 80s (Robey & Russell, 1984). Men will represent 52 percent, a decrease from 56 percent in 1982, and women will represent 48 percent, a 4 percent in-crease from 1982 (Table 2). Women of the "baby boom" generation will also have passed their prime childbearing ages thus influencing additional entrance into the work force. The 18-24 age group will decline 5 percent from 20 percent to 15 percent, and persons 25-34 years will decrease 6 percent from 28 percent to 22 percent of the population. Contrastingly, middle age workers 35 to 54 years ("baby boom" generation) will increase 14 percent from 35 to 49 percent and 11 percent of the labor force will be age 55 and over (Morrison, 1983). The decrease of younger persons, combined with increases in the middle-aged population will provide a greater number of more experienced workers in the labor force.

TABLE 2. Percent Change in Labor Force Participation Between 1982 and 2000 by Sex and Age Groups

Sex	1982	2000
Men	56%	52%
Women	44%	48%
Age Groups (in years)		
18 - 24	20%	15%
25 - 34	28%	22%
35 - 54	35%	49%
55 & over	13%	11%

Resource: Morrison, M. H. (1983).

Projected Labor Force Shortages

As the United States enters the 21st century and the labor force participants of the "baby boom" generation (49 percent) near retirement age in 2010 to 2030, predictions of labor shortages have stimulated re-evaluation of the early retirement trend and the potential of work beyond age 65 (Fullerton, 1980; Longman, 1985; Morrison, 1983; Rones, 1980). Obviously, the magnitude of any shortage will depend on the economy and the rate of labor force growth. The projections indicate this growth will decline from 2.45 percent per year in the 1970s to 1.1 percent in the 1990s and less than 1 percent by the year 2000 (Fullerton, 1980; McIntosh, 1983; Morrison, 1983). Thus, forecasts indicate that shortages may occur in entry-level employment due to a decrease in the younger population (Morrison, 1983; Rosen & Jerdee, 1986; Supple, 1986).

The decline of younger persons in the labor force should be viewed with caution in terms of "labor shortages" over the next 20 years (Morrison, 1983). Growth of the prime-aged labor force, and particularly the potential increase of middle-aged women, may mitigate the effect of the decrease in younger workers. However, the prime-aged group will also be the largest experienced component of the labor force where greater number of skilled and professional workers may have to be found. Therefore, fewer individuals may be available for the low-wage unskilled jobs often found in tourism, food service, and hospitality industries (Fullerton, 1980). This trend may suggest a greater need to look to older workers as part-time employees in entry-level positions, especially after the turn of the century. Several companies have already begun this trend. The McDonalds Corporation not only recruits at high schools but also senior-citizens centers. Wendy's International has found the elderly willing to work flexible hours and demonstrate the energy required for the fast food industry. Obviously, work in the food service and hospitality industries would not be compatible for all elderly; however, some older workers are helping to expand the labor pool in this service area.

Supple (1986) indicates that advances in technology and automation may lessen the demand for some workers. This certainly may be true for blue collar and manufacturing jobs; however, the overall increase in employment is expected to occur in service, professional/technical (medical professionals, health technologists, technicians and engineers) and clerical occupations (Carey, 1981). The projected labor force needs in these three areas and changing demographics have encouraged some companies to re-evaluate retirement policies and explore employment alternatives for older workers.

Is the trend toward longer work force participation or more options for part-time employment after retirement unrealistic for older workers? Will these trends be detrimental to those individuals who have health problems or have been displaced by technology? These factors must be considered as the 21st century approaches.

Future of Retirement: Questions and Concerns

It is ironic that a major social goal, the entitlement to retire at an early age, is now viewed with uncertainty especially for the "baby boom" generation (Levy & Michel, 1986). This generation, born in the most affluent period in America's history, has not only experienced a stagnant economy and difficulty in achieving the "American Dream," but also faces an uncertain or "different" retirement future. Considering the demographics and labor force trends, will the work life of the older population change in the 21st century? What factors impact the potential extension of work life?

Extending Labor Force Participation

By virtue of sheer numbers and the potential of labor shortages around the time of retirement, the baby boom generation may find their work lives extended, influenced not only by labor force demands but also by a personal desire to remain involved in the work force. Therefore, this generation may need to begin planning for part-time work options in addition to other

sources of retirement income.

The trend toward extending work life actually began with the passage of the Age Discrimination Employment Act (ADEA) of 1969 and the subsequent 1978 amendments that prohibited mandatory retirement below the age of 70 (Rones, 1980). Since that time Congress has raised the official retirement age to 67 effective in the year 2027 just in time for the retirement of some of the "baby boom" generation (Andri, 1985). Whether the increase in official retirement age will actually occur is debatable. A number of concerns exist that will require policy formation to insure equity among all people.

The goal of extending work lives of older people should not be achieved at the expense of others in and out of the work force. Bernstein (1983) indicated that an economy characterized by low productivity and a declining economic base cannot afford to separate employment of older workers from the national problem of unemployment. Additionally, easing the Social Security earnings test and providing tax incentives to employers who hire older workers cannot be sound public policy when younger age groups are experiencing unemployment.

There is no question that the elderly as a group have fared better economically than others groups in the last decade (Longman, 1985; Pitts, 1986). It would certainly be inappropriate to establish policies that may jeopardize the status of other groups in favor of the older worker. The baby boom generation's experience during the low growth period of 1973 and beyond emphasizes the importance of looking at policies that establish equitable opportunity among the majority of people (if that is possible). If the younger- and middle-aged population at any point in time are not given an opportunity to establish earning power and provided strong incentives to save for future retirement, the later years of life could be disastrous. However, saving cannot occur when a sizable amount of income is taken from a small percentage of the population to support a very large segment.

The sheer numbers of the retired baby boom generation will put a tremendous burden on younger- and middle-age populations if that generation plans to rely primarily on a social insurance program. Although some project the decrease in expenditures for children will offset the cost of the retired "baby boom" generation, past estimates indicate total per capita expenditures for the elderly have exceeded the amount spent for children 17 and under 3 to 1 (Longman, 1985). However, a perspective that implies that public benefits to the elderly are a one-way flow from young to old is not the case. Rather the perspective and understanding of the interdependence between generations is of critical importance in planning for the retirement of any generation (Kingson, Hirshorn, & Cornman, 1986).

Another problem in raising the retirement age is the potential of punishing older workers who are unable to work because of health problems or lack of job opportunities and skills. Income support in some form needs to be available to those individuals who may be prevented from working due to physical disability. Additionally, some older workers may be displaced from jobs or remain unemployed for long periods of time. Therefore, retraining programs and job restructuring will be needed for the displaced older workers.

The issues of the unhealthy elderly and the worker displaced by technology highlight the dangers in raising the retirement age whereby full Social Security benefits are available at an older age. Provisions must be made for these workers or the costs of later retirement will be born by the most disadvantaged aged.

Accurate forecasting of the economic situation in the years 2010-2030 is impossible; however, various scenarios must be investigated which explore retirement options for the large older population. Options including longer labor force participation attempt to accomplish this goal. If the Social Security system would by design survive until the "baby boom" retirement years, additional labor force participation (when appropriate) may lesson the burden of payroll taxes on the younger population. Whether retirement before 67 is feasible with the option of part-time work will depend on the restriction of the existing social retirement program.

Encouraging Labor Force Participation

According to a nationwide poll taken in 1981 by Louis Harris and Associates, three quarters of the sampled labor force expressed personal interest in continuing some type of paid part-time work after retirement. The majority of respondents felt a flexible work schedule or job sharing would be beneficial. This desire will likely continue if work options are available. Better health, more education and improved life expectancy provide the impetus for continued interest and involvement in work life.

As previously mentioned, labor force shortages may exist after the turn of the century and, as a result, increase the need for older workers to remain in the labor force at least part-time. In order to accommodate this desire, employers may need to offer a more flexible labor market to entice retention of employers up to and beyond the projected retirement age of 67 (Knowles, 1983). These options may include alternate work patterns such as flex-time, part-time or temporary work, phased retirement whereby an individual decreases hours and responsibilities over a period of years, rehearsal retirement which has been established by the Polaroid Corporation entails an unpaid leave of absence to test the experience of retirement, and job reassignments or job sharing. Additionally, Rosen and Jerdee (1986) forsee a need for older employees to be trainers and mentors. While these options have been instituted in some companies, additional research and demonstration is needed to help employers understand the feasibility and profitability of the flexible work environment.

The Future Retirement System

Will the baby boom generation be able to rely on the Social Security system for retirement? The debate seems to be mixed. Presently, all Social Security Administration forecasts for the next century assume that future pension benefits will be much less generous than today's (Longman, 1985). However, Munnell (1983) predicts that if the large dependent elderly population of the future is not supported through Social Security, the working population will probably and up providing equivalent support through some type of program in light of the historical inability to save for retirement.

Even if the system survives, projections such as these offer little confidence that this will be a viable retirement income for the baby boom generation. It would be advantageous for all individuals planning retirement programs to identify additional sources such as personal savings, individual retirement accounts, and pension plans that can supplement whatever social insurance program might be available. However, in order for this to be accomplished, policies must be established that will promote savings. Unfortunately, the recent changes in individual retirement accounts, the continuation of taxes on savings, and increased concern over the federal deficit are not providing incentives to encourage such savings.

Conclusion

What will be the future of retirement for the "baby boom" generation? The complexity of this issue requires prudent action by all Americans. Options need to be explored to determine viability of various alternatives in accordance with demographic and economic trends. Certainly not an easy task, however, it is critical if the younger generation is going to prepare for retirement years.

The possibility of extending labor force participation is only one option which may offer personal and economic advantages for the elderly population and for the country. However, every option has its drawbacks and cannot be viewed as "the" solution. Many alternatives must be explored and scrutinized in order to determine the most workable approach for future generations. The success or appropriateness of any retirement program depends on the interdependence of many forces that have no set pattern of certainty. Forecasting offers a very tenuous scenario of what "might" occur but, it is a task that must continue.

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PLAYING THE NUMBERS GAME

Audrey L. Peterson, University of Montana[1]

ABSTRACT

Pressure created by enrollment-driven funding formulas has made large class enrollments quite common and necessary. Instructors of such courses ultimately find it imperative to streamline instructional methods in order to reduce the time demands which evaluation of student work requires, and often the result is a curtailing of projects and written assignments which engage the higher cognitive skills. This paper describes the curriculum design developed for a personal finance class in order to accommodate increasing enrollments. Through use of criterion-referenced grading, tightly designed assignments, random grading procedures, feedback lecture techniques and multiple-choice questions directed at higher levels of thinking, academic standards and student involvement have been maintained and a two-day turnaround achieved on all student work.

Introduction

When it comes to selecting environments conducive to learning, most faculty members would probably not choose large courses. They are, however, an increasing reality on our campus and in public-financed higher education nationwide. Paradoxically, large classes have tended to occur as a result of declining college enrollments. When coupled with budget limitations, declining enrollments have led to widespread use of enrollment-driven funding formulas, through which funds for academic programs are allocated based on student demand as demonstrated by enrollment. The resulting need for academic programs to attract students creates for educators dilemmas regarding quality/quantity trade-offs in curriculum planning and program development. Many academic units find themselves unwillingly "playing a numbers game" in order to access at least a fair share of the university budget, if not to secure the very continuation of the program itself.

Meanwhile, what is happening to the educational experiences of the students? Not only are there aspects of large classes that make them less than ideal environments for quality instruction, but also instructors of such classes ultimately find it imperative to streamline instructional methods in order to reduce the time demands which evaluation of student work requires. The result is often a course based heavily on transmission and assimilation of content in a lecture/midterm/final format. Typically this instructional design curtails student activities in projects and written assignments which engage the higher cognitive skills and are more subjective to evaluate. There is little or no opportunity provided for students to interact with each other or the teacher, to speak or write about their thoughts, or to solve problems, think about, or work with the content in an interesting way. Knowledge is usually presented as though it is fixed and absolute, and student perception of the importance of asking questions or gathering information from a variety of sources and viewpoints is diminished.

In recent years on our campus, program funding and survival have been directly related to student demand and interest in the home economics program. To address this reality, in 1980 three basic courses of wide appeal were positioned at the sophomore level to attract general students to the program. All of those courses have generated enrollments from 100 to 150 students each quarter, and one of them is my course in Personal Financial Management.

Enrollments increased gradually, but by 1983 it was clear that a change in instructional design was imperative if I was to accomplish anything else during a school year. Prior to the curriculum changes I had been teaching 30 to 40 students at a time. As part of the course they had completed several projects which were applied and analytical, requiring them to evaluate aspects of their own personal financial situations. I had also relied on testing which was integrative and subjective, using short answer and essay questions. Being reluctant to give up the kind of learning experiences students were having in these circumstances, I thought there had to be a way to maintain information processing activity in the course while still managing more students. The situation created its own problem-solving exercise with two major challenges: 1) how could I design a course so that larger numbers of students could actively use a variety of concepts at the higher levels of cognitive functioning, and 2) at the same time how could I evaluate student work efficiently and provide timely feedback? Through ideas from conferences and reading, a visit to another campus and a faculty development seminar I reconstrcuted my approach to this class.

Instructional Goals

My revised instructional design is based on three educational philosophies I consider important: inclusion of process learning theory, accommodation for individual learning styles, and use of mastery learning techniques.

Process Learning

Sound instructional design, in my definition, includes process learning as well as content learning. Because of rapid change in our environments and our knowledge base, and because of our responsibility in a democracy to bring reason to bear on complex issues relating to self-governance and international relations, citizens of this country need more than a set of facts in their educational training. In process learning the student uses information, practicing "the kind of thinking required to create concepts by combining information

[1] Professor of Home Economics

in response to the challenges and demands of a given situation" (Schroder et al, 1973, p. 26). Emphasis is given not to memorizing the finished product of someone else's thinking, but rather to providing opportunities for students to understand and use that thinking in their own information processing. Thus, in a process learning environment, students are active participants rather than passive receivers of information, and are encouraged to accept the responsibility for their own learning. Similarly, teachers are responsible for designing instructional environments to foster development of information processing skills.

Three aspects of process learning theory that I used in the revised instructional design are 1) student information processing involving cognitive functioning at the application, analysis, synthesis and evaluation levels (Bloom,1956); 2) active student participation and acceptance of responsibility for learning; and 3) instructor participation as a "tour guide" or manager of the educational environment more than as a dispenser of information (Schroder, Karlins, Phares, 1973). The following descriptions of capable information processors served as operational objectives for me in designing activities to foster thinking skill development.

Students are encouraged to:

a. "Be capable or organizing units or attributes of information from several vantage points (combining and recombining the units so they can be differentially viewed)
b. Connect, organize and utilize multiple concepts or perspectives in different ways in thinking and decision making... .
c. Consider conflicting points of view in arriving at decisions.
d. Be sensitive to (aware of) changes in [their] environment(s).
e. Be adaptive--capable of changing behavior rapidly to match the contingencies of a rapidly changing environment.
f. Make complex value judgments (While it is important to learn to generate alternate conceptions of a given set of information and to weigh these perspectives in different ways in order to consider all alternative answers, it is also necessary to make judgments, to close down and say, 'Out of all these alternatives, I accept this organization of the information as correct at this time.')" (Schroder et al, 1973, p. 27).

To achieve these objectives, procedures are included in this course which allow for individual differences both in student choice of assignments and in solutions to problems.

Learning Styles

It is recognized that people learn differently. Consideration of learning styles in the instructional design for this class reflects my interest in addressing motivation and personality factors in the classroom, and my recognition that in large classes a variety of learning styles is represented. Learning style is a combination of mental process and personality (Lawrence, 1982). Because of personality preferences people differ in the ways they perceive and make judgments. These preferences over time transfer into mental habits and thus into skills developed through practice. Students become used to and good at processing information in some ways, but perhaps not in others. When they are asked to perform in their less preferred and less well developed modes, they often have difficulty.

There are many learning style theories, but I have worked most closely with applications of the concept of psychological type as identified by Swiss physician-psychologist Carl Jung. In Jung's theory, all conscious mental activity falls into four mental processes--two perception processes (sensing and intuition) and two judgment processes (thinking and feeling). What is perceived is identified either by the senses or through intuition. The use of that perceived information--the sorting, weighing, analyzing--takes place through the judgment processes of thinking or feeling.

The Myers-Briggs Type Indicator is a test designed to measure mental preferences, and results in descriptions of sixteen psychological types. The Indicator was developed specifically to carry Carl Jung's theory of type into practical applications, one of which is the schoolroom. In a traditional school setting, students typically do better if they are skilled at working alone, thinking quietly in their own heads and using abstract concepts. However, statistics indicate that only a third of the population has preferences which would lead to the development and facility of those skills (Lawrence, 1982). On the other hand, about 70% of the population prefers to gain information through the senses and likes to deal with and manipulate concrete information, engaging the senses as they work through a process or series of steps. About 70% also prefer to learn in settings where they can think "with their mouths open. [They] want to push a half-formed idea out where others can react to it because the outer world of people and things is the one they value most" (Lawrence, 1982, p. 40).

One goal of my instructional design was to reduce the bias in educational settings which favors introversion and intuition preferences. By providing a variety of exercises and experiences, by dealing with concrete facts and information, and by allowing for some group interaction on assignments, I have offered students opportunities to function in several modes and to exercise preferences. By the same token, students have the opportunity to practice other skills with which they may be less comfortable without having their entire grade rest on their performance in those areas.

Another related goal is to maintain student motivation by providing accurate, frequent and immediate feedback. Students are most interested in knowing how they did immediately after completing an assignment. Providing information at that time takes advantage of a teachable moment.

Mastery Learning

As a teacher, my primary responsibility is to support learning so that the majority of students can successfully complete the course. If I have set the criteria and they have achieved those criteria, I have no problems giving a high percentage of A's and B's or defending those grades to persons who may question the grade distribution. Norm-refer-

enced grades, or the use of the normal curve for the eventual assignment of grades, leads to a set of expectations that I think defeats the very purposes of education. We become accustomed to assuming that a small percentage will fail. Further, whether a student passes or fails has little to do with his mastery of the content--it depends solely on his rank in class relative to the performance of other students. "There is nothing sacred about the normal curve. It is the distribution most appropriate to chance and random activity. Education is a purposeful activity and we seek to have the students learn what we have to teach. If we are effective in our instruction, the distribution of achievement should be very different from the normal curve" (Bloom, 1981, p. 155).

The basis of mastery learning is the clarification of a set of objectives describing desirable student behavior, evaluation of student behavior based on those objectives, and assigning of grades according to percentages representing competency or mastery levels (criterion-referenced grading). Students then know the description of the behavior and the level of competence they must demonstrate in order to achieve a specific outcome. Each knows his/her grade is based on individual performance and not on some arbitrary distribution over which one has no control. Students can keep track of their own progress, and tend to compete with themselves and not each other. Cooperation is another clear result of criterion-referenced grades. The setting of achievement standards enables students to collaborate, work together and learn from each other without being concerned about upsetting the curve.

Course Description

The course I revised is the basic survey course in personal financial management. Although it is taught at the sophomore level, typically it has students from all class levels at a variety of ages, with widely differing experience, and from a broad range of majors. A pretest is used to determine existing understanding of content among students. Characteristic test results indicate the students have very little detailed comprehension of the subject matter being addressed. Therefore, it is still important that students acquire a content base about personal finance, including vocabulary and concept classification, and much of their energy goes to that task. A certain amount of structure is also necessary to provide security for lower division students unsure about venturing into unfamiliar content, to expedite mechanics of collecting, recording and returning assignments, and to physically manage a large number of students in one area.

These factors inhibit the degree of flexibility possible, and thus the class does not offer all the ideal environmental conditions for incorporation of process learning, learning styles or mastery learning. Indeed, it tends to be a hybrid, split about evenly between content acquisition and problem solving, and between structure and flexibility.

The instructional design for this course, then, addresses four major objectives:

1. To structure the class so that students assume an active learning role through assignments and experiences which require them to think about, use, and interact personally with the content.
2. To encourage student thinking processes at the application, analysis, synthesis and evaluation levels of cognitive functioning. (Since content is a clear need in this course, a goal is to develop questions and assignments which require that student responses about content be made in the contexts above the levels of recall and understanding)(Bloom, 1956).
3. To enhance student motivation through clear objectives, immediate feedback and attention to learning styles.
4. To minimize instructor time in evaluation of student work.

Instructional Design

Instructional activities are divided into three groups: projects, tests, and learning exercises. Projects and tests are evenly weighted in the final course grade and are mutually exclusive; classroom exercises receive half the weight of the tests and projects.

Projects

Each student turns in six projects, out of which only three are evaluated thoroughly through a random selection process. The first project is a goal setting exercise in which students have to compute the amount they would need to begin saving next month in order to achieve all their goals by the dates they have set. They have to forecast their own future goals, decide on amounts and dates, use compound interest tables or financial calculators to determine the future value of their long term goals, and finally judge the degree of reality present in those goals. All of the first projects are graded, evaluated on the basis of accuracy of calculations and completeness according to instructions, but not on goal content. These projects are very informative in getting to know individuals in the class and in understanding their various concerns and situations.

The remaining five projects are a series of problems related to a case study which is used throughout the quarter. The use of a single case 1) provides a concrete situation for students to address, 2) provides a good overview of issues and needs involved in planning for long-term family financial security, and 3) allows for a solid evaluation of the family's overall and cumulative financial planning at the end of the quarter. In the first assignment students have to develop a family budget which balances, selecting necessary information from a balance sheet, a cash flow statement, and a goal forecast sheet. (The family is composed of two working parents, an infant, and an elderly grandfather who lives with them. Their incomes coincide with national averages according to the Bureau of Labor Statistics.) Next they file a tax form for the family. Then they analyze the family's debt ratio and make a recommendation about the purchase of a desired luxury item using credit. For the fifth assignment students can choose whether to calculate the

lifecycle costs of the family's automobiles or the net cost of home ownership. Students again have a choice in the last assignment and may either calculate the family's life insurance needs or retirement savings needs.

All of the assignments require students to recommend action based on 1) their financial calculations; and 2) their more subjective knowledge of the family's budget, previous decisions which were made, and values inherent in the case study or which they personally identify. The calculations can be judged as accurate or inaccurate and allow a quick and objective evaluation of the correctness of the factual basis upon which the decision is being made. Checkpoints for grading this portion of the assignments are based on entry level factors rather than concluding amounts, thereby avoiding penalizing the student for an error all the way through the project. The decisions students make will vary depending on the individual student's assessment of the other factors involved. Instructor evaluation of the conclusions and recommendations is based on both the soundness of the reasoning, including the student's assessment of facts and validation of opinion, and on the effective communication of the reasoning process. For example, in the credit problem students are asked to develop a rationale for each of two conflicting viewpoints--one for using the credit, and another for not using the credit, based on guidelines for effective credit use. They then have to decide whether the family should take out the loan, and justify their decision by giving weight to one of the two rationales they have presented. Evaluation of the written portion of the assignments takes a little longer to grade, but there are specific reasoning points which need to be present and thus serve to objectify the process.

These last five problems are graded on a random basis, meaning that two out of the five will receive complete evaluation. Students don't know when they submit the paper whether it will be "graded" or not. If a paper is pulled by the random system, it is worth 30 points. If not, it receives 15 points for being turned in on time and completed in full. If the student's name is pulled but no paper has been turned in, the student loses 30 points. There are students who choose to play "Russian Roulette" with the system, but the majority comply and gain the experience of working through all the problems. I have found this to be an effective way of cutting down instructor evaluation time. In a class of 100, I know that during the quarter I have to evaluate 200 papers. I divide 200 by five and know that for each assignment I have to grade 40 papers. Because they have been tightly designed to reflect specific criteria, they can be evaluated quickly by me or by someone else if teaching support is available.

When a random grading process is used, care must be taken to make sure that all assigned projects are of comparable difficulty and complexity. It is also important to go through the projects thoroughly in class after they are graded so that those whose papers were not evaluated can still get feedback on their work in order to assess their understanding and level of accuracy. Complete disclosure of correct answers upon return of the papers makes the acceptance of late papers impossible, and requires students to keep up.

Tests

Three quizzes are given during the quarter, and there is a cumulative final during final week. Each quiz is composed of twenty multiple-choice questions, and the final is worth 60 points. Since students have less control over their performance on a test, each quiz is weighted less heavily than the graded assignments.

Students may choose not to take the final and elect instead to substitute their three quiz scores for the final on the assumption that they would do equally as well on the final as they did on the three quizzes. On the other hand, if they take the final and they do better on it than they did on the total of the three quizzes, they may replace their quiz scores with the final score on the assumption that they have learned what they were confused about earlier. This flexibility has helped to diminish test anxiety and proves to be motivating to students. They like to finish early and opt out of the final, and they work hard to do well on the quizzes. On the other hand, if they have had trouble with the quizzes, they have another chance to salvage the test portion of the grade with the final. This allows me to practice "management by exception": the students who need the overall review the final provides have the opportunity to take it. At the same time, I don't have to grade 100 finals.

Since the quizzes are limited to 20 questions, students can easily complete them in 35 to 40 minutes. During the last 10 minutes of the testing period I go over the questions and answers for those students who wish to stay for the review. This practice provides feedback at the time when students are the most interested in knowing the answers. The quiz format has a test and an answer sheet. When students have finished the test, they turn in the answer sheet and keep the test for the review at the end of the hour. They then must turn in the test before they leave the room. Tests and answer sheets are keyed together so I can tell if one is missing and who has it. One advantage of this approach (although I don't tell the students this!) is that if there is a viewpoint I hadn't considered on a question or some confusion of intent created by wording or item construction, I can catch it and make adjustments before all the tests are graded.

If computer grading is not available, I find that answer sheets laid out in a grid format so that they can be graded with a template overlay are faster than matching letters. During the next class period the graded answer sheets are returned and statistics are reported--mean, median and mode scores as well as difficulty indexes for each question. But no more class time is given to discussion of test content at that point.

In testing I attempt to avoid measuring skills in memorization and recall. Instead, test questions require students to apply, integrate and analyze information, thus emphasizing higher cognitive skills. Analysis of test results often reveals a bimodal curve within a given class, which has

led me to believe that one subgroup of students is more skilled at thinking and using information than the other subgroup. From students in the lower group a common remark has been, "But I studied and I knew the material. I just couldn't figure out what to do with the questions." These remarks have led me to the realization that while I may be testing for thinking skills, perhaps I haven't been teaching those skills. To address this issue I have incorporated feedback learning exercises in class and included additional study sessions for those who choose to attend.

Learning Exercises

Students earn 60 points throughout the quarter in classroom activities. These take a variety of forms and are subject to change. Typically there are about ten each quarter, making each one worth six points. But if there are more, then each exercise is diminished in value. Students don't know when they will be asked to take out a sheet of paper to do an exercise, and if they miss a day in which an activity is done, they get a zero for that activity. These activities are not graded for accuracy but simply checked off as to whether or not they were completed. They provide opportunities for students to address a particular concept in more depth, to discuss something with their neighbor and then contribute to a larger discussion, to work through a calculation or to tackle a problem-solving question. Often the questions are typical of what they might find on a quiz, and as a group we work through the reasoning processes involved in arriving at the answer. I typically stop the lecture and give them five to ten minutes to work with the activity. I walk around the room during those times to see whether individuals know where to start or if they are lost, and I give some one-on-one advice if necessary. This approach is a form of the feedback-lecture teaching method (Coffey, 1982), allowing opportunity for skill building and student interaction with concepts in the context of a large lecture class format.

Another form the exercises take is student evaluation of audio-visual presentations and guest speakers. They are asked to develop three generalizations from the presentation's content, write a question they would have liked to ask (or did ask), and assess whether the presentation should be used again. I have also begun to ask the group for assessment of bias in the presentations they hear to encourage the consideration of differing viewpoints and to broaden the perspectives of those whose experience in these areas is limited.

All scores for projects, tests and exercises are additive. To obtain a high grade for the term a student must function well in all three areas. Students who have problems in any one of the areas can still pass the course but usually with a grade of C. Irresponsibility or other problems in more than one area will create serious difficulties for students in successfully completing the course.

Summary

A favorite part of teaching for me has always been the challenge to package content in a variety of ways so that students are motivated and able to accomplish more than only the mastery of content information. Some of my instructional design creations have been quite successful and long-lived, others have been tried once and abandoned; but my teaching is always in a state of becoming, never fixed or finished. I believe that the primary role of the teacher is to be a "tour guide"--to structure learning experiences more than to give out information. Because of a teacher's familiarity with the subject area, he or she can highlight central concepts, guide inquiry and help to focus student attention on critical principles and ideas. Often students need "hands-on experience" in learning how to use information, and they need direction in sorting through a textbook full of information--to say nothing of a knowledge explosion--and classifying that information so it can be called up and used later on.

Students have enjoyed this approach and have demonstrated a high success rate in mastering content. Since 1983, this class has been taken by 768 students. Of those, 629 have completed the course at a 75% mastery level or better, amounting to 82% of the total students enrolled. Students achieving at a 92% mastery level for an A numbered 233, or 30% of the total. Students have been active and responsible for their own learning, and even in numbers in excess of 100 per term, they have acquired experience in solving realistic problems and using reasoning skills about personal finance.

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TEACHING WRITING THROUGH MANAGEMENT THEORY

Audrey L. Peterson, University of Montana[1]

Abstract

In response to the poor writing skills displayed by students in higher educational settings, many colleges and universities have begun to participate in the trend for teaching writing across the curriculum. Aspects of instructional design that facilitate the teaching of composition along with content include development of assignments, writing activities, and evaluation.

Introduction

For several years educators and the American public have decried the lack of writing skill displayed by students in and graduates of American educational institutions. All of us who are college teachers can relate example after example of poor student writing from our own teaching experience, and these serve to personalize the concerns about writing skill voiced in both the public and professional presses. Perhaps we are particularly frustrated by this state of affairs because we have expected that by the time a person enters college, those basic skills would be in place. When they are not, professors have not only the responsibility to communicate the subject matter content necessary for completion of a degree program, but also they must somehow remediate student skills in written communication so that graduates can compete effectively in society and reflect well on the institution from which they graduate.

Despite the widespread need for improved student writing skill and the advantages of including writing in college coursework across the curriculum, I have found through experience that there are many roadblocks to incorporating writing exercises in a given class. For example, enrollment-driven funding formulas in many state-supported universities and colleges make large class enrollments a necessity for continued financial support for programs. The logistics involved in reading and evaluating writing assignments for students in classes of over 35 in number render virtually impossible any serious attention to improvement of writing skills. As well, many teachers are unsure of their own writing skills and/or unwilling to place additional requirements on the time they devote to the teaching of a particular class. Among those who are interested in teaching writing, many are unfamiliar with ways of incorporating it effectively into the content of the assigned curriculum. In my first effort, I found it easy to get so caught up in the intricacies of grammar and composition that the course content lost momentum, direction and focus. Also, while it is true that term papers are commonly assigned in smaller college classes, they usually require straight expository writing and are evaluated primarily on content rather than on writing skill. Even if a portion of the grade is given for composition, students typically don't have a second opportunity to correct their errors or rework the draft, learning activities that reinforce important aspects of polished writing. Finally, there is inevitable student resistance: "But this isn't an English class!"

At the University of Montana, a campus-wide commitment has been made to improving student writing. Students now must pass an exit writing exam in order to graduate. To prepare, they must complete at least three classes that are approved for teaching writing. These classes may be from any department as long as the have the "W" designation granted by the Academic Standards and Curriculum Review Committee, a branch of the Faculty Senate. In order to qualify for the "W" designation, the class must provide at least three opportunities for written work that is evaluated for composition as well as content. One of those assignments must include a rough draft and a final draft, and students must receive some feedback on their writing within the first six weeks of the ten-week quarter. As well, at least 50% of the final grade must be based on written work. One such designated "W" course is the introductory management theory class, Family Resource Management, which I find lends itself well to the incorporation of writing exercises and assignments. Because effective management is heavily dependent on the accurate assessment of personal values and goals, the application of management principles and theories is often highly subjective and philosophical. Writing assignments provide both focus and latitude as students work to make the ideas their own. The following sections describe approaches to assignments, writing activity and evaluation that I have found valuable in my efforts to incorporate the teaching of writing into management theory content.

Assignment Development

The RAFTS Approach

Much of the success of student writing depends on the nature and clarity of the assignment. When students know specifically and precisely what they are to do, their writing becomes more specific and precise. To this end, the "RAFTS" assignment is highly effective. Developed in the 1978 Montana Writing Project by Nancy Vandeventer, a middle-school teacher in Bozeman, MT., the RAFTS approach to writing assigns the student a Role, an Audience, a Format, a Topic, and a Strong verb. An example would be:

> You are a home economics teacher in a large high school (role). Your fellow faculty members and your students (audience) know you teach time management in your classes and practice it effectively yourself. You have agreed to their request for a 500 word article in the first edition of the school paper in the fall (format) on tips for managing time effectively in the new school year (topic). You want to convince

[1] Professor of Home Economics

(strong verb) your readers of the value of trying your ideas in their own lives. Write the article you will submit.

With this type of assignment, the student knows the setting and purpose for his/her writing. Questions of style, content, length and approach are all resolved and clarified. Since "the teacher" is not the assigned audience, the student writer generally does a better job from the outset as no assumptions are made about what the reader already knows about the topic.

In designing a RAFTS assignment, the teacher needs to realize that the responsibility is on him or her to describe clearly what is to be done. The reader (student) should not be expected to interpret or decipher the teacher's intent. Therefore, considerable time may need to be invested in the development of the assignments. I find it helpful to ask myself: What are these students going to have to do with their writing when they leave me? Because I believe strongly in the importance of home economists communicating effectively with their publics, many of the formats I give students are such things as letters to the editor, feature articles, newsletter items, book reviews for professional publications, public service announcement scripts for radio or TV, lay magazine articles or query letters for lay magazines, or newspaper columns. Many of these formats require short, concise writing assignments. Such space limitations present an additional but realistic challenge to the student attempting to communicate effectively through writing. As well, some of the submitted papers can be sent off to the various media for publication or dissemination, providing additional purpose and interest for the student beyond the exercise of writing itself.

Pre-writing Assignments

Pre-writing assignments are basic to good written work. These assignments involve readings, discussions, questions or activities that give students experience, perspective and knowledge necessary for producing convincing and credible writing. I find that the management theory course lends itself particularly well to this aspect of teaching good writing. As they practice or apply management principles, students can carry out activity assignments which provide some of the pre-writing experience. They can attempt to manage their time for two weeks or a month, or can plan and engineer a storage reorganization project. They can see what it's like to conserve a particular resource for a month, or experience the planning of meals for two days without use of refrigeration or hot or cold running water. Their experience plus research they may have done to organize their activity gives them the authority and confidence needed to write about and to evaluate the effectiveness of various approaches to personal management.

Rewriting and Revision

A critical component of good writing that needs to be communicated through the teaching of writing is the necessity for rewriting and revision. Very few people can submit for evaluation or publication a first draft with no changes. Certainly the advent of word processing technology makes revision much less painful, and students should be encouraged to use this very important writing tool if it is available to them.

At least one assignment should allow for the submission of a first draft and then a later final draft. With the first draft I require a cover sheet in which the student describes what is liked and not liked about the draft, and what the student would do if there was another week to work on it. This requires students to do some analysis of their writing and to think about what else might be done on the work, and it gives me something to which I can respond in my comments on the draft. There is no grade given on the first draft. When the final draft is submitted, students are asked to do the same kind of assessment on a new cover sheet. They also must submit the first draft and cover sheet along with the final draft and cover sheet. I can then clearly see the whole writing and revision process while I am evaluating the final draft.

One other activity which I have found to be important here is to devote some class time for peer review. I divide students up into pairs or groups and have them read, discuss and provide suggestions on each other's first drafts. I find that this activity needs to be presented positively and in a non-threatening way as there is usually considerable student resistance to the idea. Students have substantial ego-investment in their writing and tend to find threatening the idea of criticism from peers. They are also hesitant to expose their thinking and ideas to their classmates. However, after the session I have found students to be really quite excited, motivated and pleased at the wealth of ideas and new perspectives they have gained from each other, and the general class atmosphere moves forward as one of support for and interest in one another's work.

There are several advantages to the rough draft-revision-final draft assignment. One is that the papers are usually quite good by the final draft and grading presents few problems. Another is that the students' standards for their own writing are raised. They get the experience of revising, reorganizing, adding, subtracting, and polishing their writing, and begin to realize the hazards in dashing something off the night before it is due. An additional advantage is that students become less defensive and ego-invested in their writing and are willing to call on others to help them. They recognize good writing as a skill that can be developed rather than solely as a talent that you have or you don't. As well, they get a chance to see what their classmates are doing in class and to learn from each other. (I have always thought it a shame that the teacher is often the only one who sees the full range of activity and learning which is going on.) Finally, the best advantage from the teacher's perspective is that improvement--many times very dramatic improvement--can be seen in a student's writing, and both teacher and student leave the course with the sense of having accomplished something very important and useful. And whether the student knows it or not, through the process he or she has learned a good deal about management theory as well.

Evaluation

The written work is evaluated against four major criteria: idea development and content, organization, style, and mechanics. These criteria may be weighted depending on what the teacher wishes to emphasize. Idea development and content, which I weight at 50% of the grade, evaluates such aspects as: whether the paper focuses on an overall main idea, whether the paper reflects correct and accurate understanding of concepts and terminology, whether there is sufficient information (facts, examples, details) to support ideas and statements, whether sentences and paragraphs relate logically to the overall theme being developed, and whether references are present and appropriate for claims being made by the writer. Organization (25% of the grade) evaluates whether the paper has a thesis statement, whether there is present a distinct introduction, body and conclusion, whether paragraphs have topic sentences, and whether each paragraph leads logically to the next Style and diction (10% of grade) relate heavily to the role, audience and format assigned to the writer. Does the writer choose words appropriate for his/her purpose? Is there a variety of sentence patterns? Is the language interesting, clear and appropriate for the audience? Mechanics (15% of grade) evaluates grammatical accuracy. Common errors include misspelling, shifts in tense and person between subject and verb, incomplete or run-on sentences, comma splices, misplaced modifiers, and use of prepositions at the ends of sentences.

I found evaluating and marking papers for mechanical errors to be tedious and disruptive to content comprehension until I learned the following approach from Dr. Beverly Chin in the Department of English at the University of Montana:

1. All papers submitted for evaluation are to be typed and double-spaced.
2. Before the paper is turned in, it is to be read and initialed by another class member as editor. That reader is responsible to find and note errors which the author may have missed. Errors found are to be corrected neatly in ink by the author before the paper is turned in.
3. When I read the paper, in the left margin at the beginning of each line of type I place a check mark for every mechanical error in that line.
4. When the paper is returned, the grade is posted on the paper but not recorded in the grade book. In order to get the grade recorded (and therefore get credit for the assignment) the student has to find each error and correct it by the next class session. (This does not require rewriting. Corrections can be made by hand with a pen.)
5. If more than 5 checks are found on any page I draw a line after the fifth check to indicate that I quit reading at that point. The paper is returned for correction/revision before I will continue to evaluate the work. In that event the student receives a zero for the mechanics portion of the grade, but still will get credit for the organization, idea development and style used in the paper.

This procedure shortens considerably the time spent evaluating papers and identifying grammatical errors. It allows me to focus comments on more substantial matters of idea development, organization or style. It also forces the student to find and correct his/her own errors, an exercise which aids and reinforces the individualized learning process and improves the student's ability to edit his/her own work. It is helpful as the teacher to have available handbooks or style guides to answer questions you or your students may have about mechanics. Some suggestions are the Harbrace College Handbook from Harcourt Brace, the Modern Writer's Handbook by O'Hare, the New Concise Handbook by Guth, or the Practical English Handbook by Watkins and Dillingham.

Conclusion

The processes I have described are part of the trend toward teaching writing across the curriculum in the college setting. I think this trend has promise both for providing students with the opportunity to practice writing skills in a variety of subjects and for emphasizing to them the importance of good written communication in other arenas beyond the English classroom. As well, the potential for enhanced learning exists. For in writing about a subject, a student has to interact with the concepts and demonstrate a higher level of understanding and comprehension than that usually required in a lecture/test class format. Finally, it would seem that experiences in writing in a variety of settings and formats and on a wide range of topics would develop a student's confidence as well as competence. If these writing experiences would lead college students in home economics to greater interest in writing and publishing as professional home economists, whether in professional publications or the lay press, in the long run they would substantially increase the visibility and public relations image of the profession.

WORKSHOP

USING FAMILY DATA FOR THE WELFARE OF FAMILIES
APPLICATION IN THE COURTROOM AND THE CLASSROOM

Introduction	**Jeanne W. Smith**
Case descriptions Role of FEHM specialist as educator/expert Opportunities for application of family economics data	
Interface with Legislative and Judicial Systems	**Jeanne W. Smith** **Ruth E. Berry**
Making information and research available to attorneys and legislators Serving as an expert	
Family Economics Data in the Courtroom	**Jeanne W. Smith** **Ruth E. Berry**
Family Economics Data Application in the Classroom	
Extension programs	**Alice Mills Morrow**
Second Marriages	**Anita B. Metzen**
Graduate Core Course	**Jeanne M. Peters**
Research Needs	**Alice Mills Morrow**

IMPLICATIONS OF MARITAL PROPERTY LEGISLATION FOR FINANCIAL MANAGEMENT OF REMARRIED FAMILIES

Anita Barsness Metzen, Cornell University[1] and
University of Wisconsin-Milwaukee[2]

Abstract

This paper discusses the profound effect that a major change in state property laws has on remarrieds. The role of extension in acknowledging this growing family form by addressing their needs and characteristics in educational materials and programs as well as when dealing with public policy issues is also examined.

Introduction

On January 1, 1986 Wisconsin became the first state to enact legislation that changed the property system from that of separate ownership to one in which a married couple is considered a financial partnership. The Wisconsin Marital Property Act (WMPA) redefines marriage as a "legal relationship between two equal persons, a husband and wife, who owe to each other mutual responsibility and support." This responsibility includes the obligation of each spouse, in accordance with his or her ability, to contribute money or services or both as necessary for the adequate support and maintenance of his or her minor children and of the other spouse.

Prior to WMPA, an individual owned property by virtue of having bought, earned, or otherwise received it, with exclusive property interest in and complete control over that property. Property titled to one spouse was owned and controlled by that person, and the spouses' estates were essentially separate. Under WMPA, both spouses have an undivided, one-half ownership interest in property obtained during marriage, whether as a result of their individual efforts or as income earned from assets held. Consequently, whereas before WMPA action would need to have been taken for shared ownership to occur, after WMPA sharing is assumed regardless of which spouse made economic or service contributions through whatever efforts, and specific direct action would need to be taken in order to establish or create separate property.

The final passage of WMPA followed years of discussion and debate, during which it was recognized by those involved in its development as a tremendously complex law which would create a new and unique property system for Wisconsin couples. Interestingly, the impetus for the change originally was the need for equity in farm family situations where tax consequences of separately owned property disadvantaged women, who in many cases were forced to liquidate property to cover estate costs of a farm that had been owned solely by their deceased husband, a farm on which they had worked side by side throughout their marriage. Although Wisconsin tax law was changed to alleviate problems for farm families, by then the movement toward equity had taken on a life of its own, and WMPA was pursued for the general good of women, particularly those in homemaker roles. In recognition of the need to allow time for professionals and citizens to prepare for the change, the law was not scheduled to go into effect until January first of the year following its passage.

Extension Educational Programs

Although there had been efforts to communicate the various aspects of WMPA to the public, educators remained concerned that the majority of couples would be unaware of its potential impact on their lives. During the fall of 1984, while at the University of Wisconsin-Milwaukee/Extension Center for Consumer Affairs, the author arranged for seminars to be offered at six locations throughout the state, taught by extension faculty as well as professionals in law, accounting and insurance. In the question-answer sessions as well as during informal discussion during coffee breaks, a number of the questions asked by the 772 persons attending the seminars reflected the concerns of remarried couples. It became apparent that the new law was of particular concern to remarrieds, yet the speakers had not included among their remarks sufficient information and examples specifically addressing their unique situations. It was further realized that in the compiled packets for attendees no handouts were prepared for remarrieds nor was adequate reference made to their situations or concerns in the included reference materials. A major overhaul of the state's property laws was clearly seen as requiring adjustment on the part of Wisconsin marrieds who needed to examine whether the new law would require any action on their part. Yet, for remarrieds, who are confronted with a new property system that will have more potential problems for them than first marrieds, it required initiative on their part in raising the issues during the seminars in order to have sufficient attention paid to their unique situations.

It has been estimated that 20% of married couple households include one or both spouses who were divorced. Yet, because these remarried families appear to be no different than first marrieds, there has been insufficient attention given to

[1]currently visiting instructor, Department of Consumer Economics and Housing

[2]formerly education specialist, Center for Consumer Affairs

helping them manage their financial affairs. A survey of Cooperative Extension Specialists in Family Resource Management (FRM) and Family Relations and Child Development (FRCD) disclosed that while FRCD Specialists were more involved than FRM Specialists in addressing the concerns of remarried families in their programming, in general both expressed a need for additional information and resource materials for use with remarried families (Lown & Merfeld 1986).

Concerns of Remarried Families

The substantial increase in remarriage has resulted in more and more families facing the problems of blending two previously separate units into one. Remarrieds have more complex interpersonal relationships both among newly formed family members and with those from their former marriages. Money is a common problem for remarried couples, in terms of financial management as well as property ownership issues. Remarried families often find themselves with previous resources having been depleted by divorce, current resources used to accommodate both past obligations and present needs, and future resources partially committed as well. Added to these pressures is the reality that remarriage unites persons who have developed, over time, different and potentially conflicting methods and attitudes regarding earning, spending, and managing money. In terms of property ownership, remarrieds face considerations of how to treat property each already owns at the time of remarriage, how those and other assets are to be owned during the marriage, and what are to be the ultimate plans for gifting and eventual disposition of property. Given these potential problems, one would assume that such matters would be worked out prior to remarriage. With more complicated affairs, and the possibility that money problems may have been a factor in a previous marriage dissolution, there is usually much to be disclosed, discussed, and understood. However, in a study of remarrieds in Utah, it was discovered that "despite acknowledging that financial problems contributed to their divorce, very few of these couples discussed finances before remarrying even though the merger would include two or three children on each side. Perhaps neither partner wanted to appear overly concerned with money. However, a number of the families admitted to experiencing financial strain after remarriage." (Lown, 1984)

In Wisconsin, before WMPA, the unspoken rule was that the partner who earned the money controlled it. That orientation could make it seem unnecessary (or futile) to bring up money issues that are considered the domain of one person. In separate property states, couples who are reluctant to be open about finances may find themselves concealing assets from their partner or being fearful of "overstepping their bounds" in seeking information. That perspective was reflected in the requests of women attending the seminars who specifically requested that acknowledgment of their registration NOT be sent to their home address because, we were told by way of explanation, they did not want their husbands to know of their attendance. Although these requests could have come from first marrieds as well as remarrieds, they do indicate a lack of communication and trust between couples who must now cope with a changed law in which the presumption is that they are economic partners, legally sharing income and assets, supposedly informed and cooperating in this relationship.

Use of Marital Agreements

The changed law affects all Wisconsin marrieds, and requires that those who wish to operate differently make adjustments and draft necessary agreements to suit their circumstances. Those couples who are contemplating or already in a second marriage are particularly affected because total sharing, co-ownership, management, and control of all property and income is less likely to be desired (or even possible) than in a first marriage where accumulation of assets together from the beginning is more likely. This has been labeled a "double barreled adjustment" to emphasize the multiple problems remarrieds face in both blending two previously separate family units into one, and needing to either adjust their individual financial circumstances to the provisions of WMPA or develop a mutually acceptable alternative set of arrangements.

The following are examples of provisions of WMPA that could be inconsistent with the interests of remarried couples:

1) A person cannot keep property brought into a new marriage as individually owned without exercising extreme care. Under WMPA, any gain in value of the property due to effort by either partner will become marital unless one fairly compensates oneself (or spouse) for any time or skill used to buy or sell (or manage in any way) the stock, real estate, etc. Further, the income from such property (which is marital) must be kept separate, or carefully recorded. It is highly likely that such a system would break down.

2) A person cannot keep gifts or inheritances as individual property, without the above restrictions and tracing efforts

3) For the purpose of obtaining credit, each spouse has access to 100% of the marital assets. Furthermore, one spouse has the right to terminate the other's charge account.

4) A spouse cannot gift more that $1000 a year to someone other than their partner, for example to give money to an adult child from an earlier marriage for college expenses without their spouse having the legal right to recover that money from the parent giver or child recipient.

5) A spouse can lose the sole rights of naming a beneficiary other than a spouse, and other rights of ownership for a life insurance policy.

6) For estate purposes, with real property, Wisconsin law assumes that a home the couple is living in is survivorship marital property with one's interest passing directly to the surviving spouse at death. For other assets, each spouse has the right to distribute by will only his or her half of the property. Upon death, with no will, the entire estate now passes to a spouse

even if they have children, unless the decedent's children are not also the children of the surviving spouse in which case the surviving spouse splits the estate 50-50 with their decedent spouse's children.

These situations, and others, suggest that remarried couples would likely need to take specific actions to protect their separate interests, a matter which, under the former law, was accomplished automatically and without confronting what may now be visualized as social or legal norms. Remarried couples also need to consider whether, under WMPA, a surviving spouse would benefit by having a written document which children from an earlier marriage might more likely accept as proof of what their deceased parent wanted, rather than having to rely on the word of that parent's surviving spouse.

Couples who wish to make changes in property ownership, management, and control need to prepare a carefully drafted marital property agreement, which can be either pre-nuptial or post-nuptial. An agreement may be amended or revoked only by a subsequent agreement. Except for altering the right of a child to support, the obligations of the spouses to act in good faith, or the protection of individuals who have no knowledge of the agreement, a marital property agreement can be used to alter as desired any aspect of property ownership classification, management, and control rights during marriage as well as to determine in advance an agreed upon distribution of property in the event of death or divorce. Although the law provides that an agreement may be drafted without having any attorneys involved, because of the complexities of a new law with many relatively untested provisions, drafting a document that would later hold up in court likely requires legal help, especially for remarrieds given their potential for problems. For the agreement to be enforceable, it is necessary that each spouse receive disclosure of the other's assets and liabilities; that the agreement be executed voluntarily by both spouses; and that a spouse giving up rights has a clear understanding of what those rights are, the value of the property being relinquished, and is in general getting a 'fair deal' and signing without coercion or pressure. In situations where significant property is involved or there is a possibility that someone else (such as children from a former marriage) could later challenge it, each spouse would need separate counsel to be more certain that an air-tight agreement has been drafted.

Summary and Conclusions

The Wisconsin seminars were designed to explain the new Marital Property Act, to help couples determine whether they wished to operate under these new rules, and if not how to have any needed changes made. In planning the seminars, increased attention could have been given to the special needs of remarried couples, with their concerns about WMPA incorporated into the programs, and materials prepared that included more specific reference to their situations. In response to identified needs, a set of booklets was later prepared to address financial management and planning by remarrieds under Wisconsin law, which proved useful in future programs designed for remarried couples. There also proved to be some "spillover" effects, as remarried couples were more likely to be considered an integral component of other Extension audiences, and more visible in presentations and materials as a clearly identifiable family form.

In addressing public policy issues, family economists in particular need to assess the impact on all families in various forms when promoting or reacting to any proposed changes. It was apparent that the specific concerns of remarrieds were not adequately addressed during the lengthy time involved in drafting and passage of WMPA, despite the particular problems the law creates for their circumstances.

In conclusion, we as educators need to continuously assess whether we are adequately integrating remarried families in our programs and materials, as well as whether we are including their needs when influencing public policy.

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DIVORCING COUPLES NEED FINANCIAL INFORMATION AND EDUCATION

Alice Mills Morrow, Oregon State University[1]

Family economists concerned with the economic well-being of families cannot ignore the long lasting financial effects of divorce. A 1987 research report cites two events, parental unemployment and divorce, which result in decreased living standards for women and children. According to the report the longer-run economic consequences of divorce are more severe than those of unemployment (Burkhauser and Duncan, 1987).

It is generally assumed that individuals in the process of divorce obtain financial information from their attorneys. However, there is evidence that this is not the case. A 1981 case study of six divorced couples, reported that none of the couples received any financial counseling before or during the divorce (Gorman, 1981). A 1986 research project reported that of the 116 couples in the sample who had divided property at divorce, many did not know how the property was valued, or had not valued the property using objective data such as appraisals or valuation statements (Rowe, 1986).

Even when individuals have legal assistance making financial decisions, this does not mean they understand why the decisions were made, the future implications of the decisions, or the financial adjustments required as a result of the decisions. You have all heard these or similar statements from divorced individuals: "If only I had known how much it cost to live in this house;" "If only I had thought about retirement;" "If only I had thought about the children's college costs."

Individuals need information and education at three stages: pre-divorce, divorce, and post-divorce. You, the family economist, can assist at each stage.

Pre-Divorce Financial Management

The period before divorce is difficult. A couple is expected to make decisions at a time of emotional turmoil and in a setting that does not always lend itself to rational discussion. A couple usually experiences increased financial pressures due to the separation and pending divorce. Each spouse needs to develop a temporary income and expense plan to insure that current financial obligations are met, and if possible to avoid incurring additional debt. If one spouse has no money for current living expenses or if one spouse fears the other will sell or dispose of assets, legal help is needed.

Financial Decisions at Divorce

Valuation and Division of Assets and Liabilities

At divorce, decisions must be made about the division of family property and payment of family debts. States differ in their determination of what property is divided at divorce--all property? property accumulated during the marriage? gifts? inheritances? States also differ as to the date the property should be valued--date of hearing? date of separation? date of filing? date of decree? Advice about what property is to be divided and when it is to be valued should come from an attorney.

Family economists can provide education and information which will increase a couple's understanding of the nature of their assets. Is property divisible? Is property marketable, and if so, how long would the sale take and what would be the after-tax proceeds? Will property appreciate or depreciate? Does the property have consumption value? On a balance sheet, a $15,000 car, a $15,000 mutual fund, and a pension fund with a present value of $15,000 are equal. But you know, and you can help divorcing individuals understand the differing characteristics of their assets.

The asset often most troublesome for any couple is the family home and its contents. The family home is more than shelter, and has emotional value in addition to its investment and consumption value. Help individuals look objectively at decisions regarding the family home. Ask appropriate questions: Can either spouse afford to live in the house after divorce? What is the cost of alternative housing? How long would it take to sell the house? How much would be realized from the sale? Are there income tax considerations?

The value of the home is property to be divided. This value may be divided in several ways: present sale and division of proceeds; one spouse buys the other's share; one spouse retains the home in his or her own name and the other receives property or income of comparable value; or a future sale and division of proceeds.

Another troublesome asset is value accumulated in retirement accounts: Individual Retirement Accounts, tax sheltered annuities; Keogh plans, deferred compensation, employee stock options, employee pensions. Money contributed to these during the marriage and the future benefits resulting from the contributions are property to be considered in the divorce settlement. Help couples know where to gather information to increase their understanding of retirement assets.

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[1]Associate Professor, Extension Family Economics Specialist

Child Support

In most states, both parents are responsible for the financial support of their children and the support obligation is apportioned between parents according to their respective finanoial circumstances. Some states have statutory child support guidelines and others have objective child support schedules with statutory guidelines which allow discretionary deviation from the schedule. In any state the two major questions to address in determining child support obligations are: What are the financial needs of the child? How much of the cost should be paid by each parent?

There are no charts or tables that tell exactly how much it costs to raise a child. However, there are two methods of estimating the costs. One method uses the family's data and the other uses researchers' estimates. Often couples need to combine the two methods. They have some information from their own records and use some information from estimates.

The advantages of using a family's expense records is that these records more accurately reflect the family's lifestyle. The disadvantage is the records are often incomplete. The advantage of using estimates developed by researchers is they are more complete and reliable. Of course, these estimates cannot be interpreted as precise costs of raising children in a particular family.

Available family data (past income/expense statements, receipts, cancelled checks, credit card statements) assist in the determination of the child's current expenses. Prompting from you may help parents recall those expenditures that do not occur routinely each month--summer camp, clothing, back-to-school expenses, medical and dental insurance, extraordinary medical or dental expenses.

Parents often have difficulty determining the children's portion of money spent by the family for food, housing, and transportation. The children's food costs may be determined using the "United States Department of Agriculture (USDA) Estimates of the Cost of Food at Home."

The children's housing and transportation costs may be determined using average cost (total cost divided by the number of people in the household) or marginal cost (total cost minus the cost for the parent). Children's transportation cost may also be based on mileage (number of miles driven for children times average cost per mile).

Children's housing and transportation costs may increase after divorce if children alternate living between two households. When children live in two households, both parents incur the cost of providing housing and transportation year-round in order to have them available during the periods when the children are in the home. If children will be spending substantial amounts of time with each parent, include the costs of both parents.

After parents have agreed on current costs, they must estimate future costs. What costs will decrease as children become older? What costs will increase as children become older? What will be the cost of post-high school education? What will be the effect of inflation? Your knowledge of present and future values of money will be helpful.

The most commonly used estimates are the "United States Department of Agriculture (USDA) Estimates of the Cost of Raising a Child." These reflect actual expenditures based on information from families with children at those ages; they take into account the needs, expenditure patterns, and family characteristics related to the child's age. The disadvantage of these estimates is that they are based on 1960-61 data, updated to reflect current prices. The ways families live and what they purchase has changed. Also the data are based on nondivorced families. When parents divorce, some costs increase. Thus, experts feel the USDA estimates are low. Parents often feel the estimates are high. In any case, they do provide a place to begin discussion of the child's financial needs.

Approaches differ in allocating the childrearing costs between parents. All states take into account the financial resources of each parent, and attempt to divide the support equitably. Two approaches often used are cost sharing and income sharing. Cost sharing allocates the children's financial needs between parents, in proportion to their respective incomes. Income sharing allocates a percentage of each parent's income to the children.

Spousal Support

Spousal support, also called maintenance or alimony, is post-divorce payments from one spouse to the other. There is no automatic right to spousal support. The trend is that spousal support is based, not on marital misconduct, but on one spouse's ability to pay. When spousal support is awarded it is most often for a temporary period to give the spouse time to become employable.

You can help couples project post-divorce income and expenses. These are needed to show need for or ability to pay spousal support. They are also important in identifying financial adjustments that will be required.

Assist them in reviewing benefits (health insurance, retirement) that one spouse may have had because of the other spouse's employment and alternatives for providing these benefits after divorce.

Post-Divorce Financial Management

After divorce, individuals create new lives, including new financial lives. Because resources were divided at divorce, each individual has fewer assets than the couple had.

Each individual needs to understand his or her financial situation and needs a realistic

financial plan including a budget and recordkeeping system. Each individual usually needs to revise insurance, retirement and estate plans.

If after divorce, there are financial transactions between the former spouses that will continue--child or spousal support payments, sale of property--a relationship continues after divorce. This is not the intimate relationship the marriage was, but a business relationship. Give individuals suggestions on ways to establish this new relationship.

Recordkeeping takes on new importance for a divorced couple. Spouses paying or receiving support payments, should keep records of all payments. Both parents should keep records of expenditures for children. The records are useful as each parent budgets and plans, are useful if child support changes are being considered, and help both parents better understand the child's financial needs.

Oregon Education Efforts

One of the program goals of the Oregon Extension Home Economics Program is to increase the understanding of the financial decisions at divorce in order to minimize the negative economic consequences of divorce and to increase the individual's ability to predict and adjust to the financial changes resulting from the divorce. Audiences targeted under this goal include divorcing individuals and those people in the community who counsel and assist divorcing individuals.

The instructional tool developed for this program is a publication, "Making Financial Decisions When Divorce Occurs: An Oregon Guide."[2] First published in 1986, the publication was revised and reprinted in 1987 to include an expanded section on child support and to incorporate suggestions from users of the first edition. The publication includes ten worksheets to help a couple determine their financial picture.

Be Yourself--A Family Economist--Not an Attorney, Therapist or Advocate

Refer Legal Questions to an Attorney

A family economist should be familiar enough with the provisions of divorce law in her or his state to know when people should seek legal advice. As couples consider divorce settlement options, they are usually influenced by their understanding of what might happen in court. Help individuals formulate and clarify their questions. Encourage them to seek advice from attorneys concerning their legal rights and responsibilities.

Point Out Financial Reality

Everyone going through divorce has some emotional responses--disappointment, anxiety, anger, hostility, depression. When emotional responses are so severe that a person is unable to discuss financial considerations rationally, refer the person to a therapist or a divorce counselor. When the emotional responses are under control, you may help the individual focus realistically on financial aspects.

Divorcing couples must recognize the following financial realities:

When property is divided, each person ends up with less than was possessed by the couple.

Children are expensive and become more expensive with age.

Two post-divorce households cost more than one pre-divorce household. If income does not increase, level of living must decrease.

Develop Options That Benefit Both Parties

The family economist can help couples evaluate options and can suggest new ones. If there are two options, one favoring the husband and one favoring the wife, give both options even if you are talking individually with one spouse. State the assumptions underlying each option and its advantages and disadvantages. Give this information in writing if possible. Written information aids understanding and makes it easier for spouses to share information with each other and with their attorneys.

References

1. Burkhauser, Richard V. and Duncan, Greg J. (1987). "Life events, public policy and the economic vulnerability of children and the elderly." University of Michigan.

2. Gorman, Patricia (1981). "Case study examination of the financial implications of divorce." Unpublished Master's thesis, Colorado.

3. Rowe, Barbara R. (1986). "The economic consequences of divorce after ten or more years of marriage." Unpublished doctoral dissertation, Oregon State University.

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[2] "Making Financial Decisions When Divorce Occurs: An Oregon Guide" EC 1242, is available for $2 plus 25 cents for shipping and handling from Publications Orders, Agricultural Communications, Oregon State University, Corvallis, OR 97331-2119.

WRHMFEE CONFERENCE

MINUTES

Friday, November 6, 1987

1. The minutes of the 1986 Conference were accepted as presented.

2. Karen Varcoe, Executive Director, presented the financial report for the WRHMFEE account and the newsletter account. A copy is attached. The WRHMFEE account is being transferred to Arlene Holyoak, the new Executive Director.

3. Conference Committee Reports:

   a. 1986 Conference--Jeanne Smith indicated that there were 56 attendees at the conference in San Francisco. Total receipts were $4,658.50 with total disbursements of $4,454.57.

   b. 1987 Conference--Phyllis Johnson reported there were 48 full registrants and 16 students attending the conference in Vancouver.

   c. 1988 Conference--Ginny Haldeman officially invited the group to come to Reno in 1988 for the conference. Arrangements have been made at the Hilton with "Stress: Family, Economic, and Management Considerations" as the theme. Because Friday, November 11 is a holiday, she suggested the conference be held Tuesday, Wednesday, and Thursday. After a short discussion, the group recommended that the meeting be held on Sunday, Monday, and Tuesday or Wednesday, Thursday, and Friday.

   d. 1989 Conference--Kay Henderson invited the group to meet in Seattle.

   e. Proceedings--Arlene Holyoak announced that the deadline for the proceedings is November 20.

4. Committee Reports:

   a. WRHMFEE Research Awards--Peggy Berger announced that there were five applicants for the Ph.D award. Barbara Rowe was the recipient.

   b. Refereed Papers--Norleen Ackerman reported that eight papers were submitted and five accepted. A discussion of the criterion for the types of papers acceptable as refereed followed. Alice Morrow moved to use a broadened definition. "Papers may be based on research, theory development, history, literature review, position statements, innovative teaching techniques, or program development and evaluation." The motion was seconded and carried.

   c. Reviewed Papers--Ginny Haldeman announced that 18 papers were submitted, 14 were accepted, and 12 were presented.

   d. Nominations Committee--Donna Selnick presented Jane Miners name as Newsletter Editor. Ginny Haldeman moved that the nominations be closed. Jane was elected by acclamation. Two names were presented for president--Sally Horton and Phyllis Johnson. Phyllis Johnson is the new president.

5. There was no old business.

6. New Business:

   a. Approval of updated WRHMFEE guidelines--Sally Horton presented updated guidelines for the group's approval. They were accepted with the following changes:

      1) Ph.D. award should be given on a nationwide basis including all of Canada.

      2) The definition of Western Region should include the provinces of Canada.

      These changes were made and are included in the attached copy of the revised guidelines.

   b. A discussion of the name of the group followed. It was suggested that the name be changed to "Western Region Family Economics/Management Educators." This discussion was tabled until the 1988 meeting. Phyllis Johnson will appoint a committee to evaluate this change and make suggestions regarding the name.

   c. Sally Horton announced the following chairs for the 1988 committees:

      Research Award, M.S. -- Barbara Rowe.

      Refereed Papers -- Mari Wilhelm.

      Reviewed Papers -- Jeanne Smith.

Respectfully submitted,

Karen P. Varcoe

WRHMFEE ACCOUNT

Balance 11/4/86		$ 512.75
Receipts:		
Interest	$ 104.54	
Sale of Proceedings	155.00	
Transfer from Scholarship Fund	970.24	
Transfer from 1986	3,770.74	
TOTAL		5,000.52
Conference Fund		$5,513.27
Disbursements:		
Proceedings	$ 666.12	
Supplies, Telephone, Postage	81.43	
Advance to 1987 Conference	300.00	
1987 Scholarship	400.00	
Honoraria for 1986 Conference	250.00	
Transfer to Newsletter Fund	85.00	
Miyako Hotel	2,077.48	
TOTAL		-3,860.03
BALANCE		$1,653.24

WRMFEE NEWSLETTER ACCOUNT

Balance 9/10/86		$412.10
Income:		
Subscriptions	$ 70.50	
Interest	20.49	
TOTAL		90.99
Newsletter Fund		$503.09
Expenses:		
Winter, 1986	$ 52.30	
Spring, 1987	44.78	
Summer, 1987	42.54	
Fall, 1987	44.25	
TOTAL		-183.87
BALANCE		$319.22

GUIDELINES[1]
WESTERN REGION HOME MANAGEMENT--FAMILY ECONOMICS EDUCATORS

I. Name: The name of the organization shall be Western Region Home Management--Family Economics Educators.

II. Purposes: The purposes of the organization shall be to:

A. provide professional exchange by home management and family economics professionals through
   1. an annual conference
   2. publication and dissemination of information and educational materials

B. stimulate personal and professional growth of members through
   1. coordination of annual conference
   2. participation in annual conference program
   3. contribution to activities of the organization

C. assist professionals in program development and evaluation to meet the needs of their professional situation through
   1. program content at annual conference
   2. professional exchange at annual conference
   3. publications of the organization

III. Membership: The membership shall be composed of home management and family economics professionals in the Western Region of the United States and Canada. These members shall be voting members and eligible to hold office. Conference invitations may be extended to home management and family economics educators in other states and provinces, state supervisors of home economics education, graduate students, and other interested persons.

IV. Conference: An annual conference shall be held in November. Location will be based on membership acceptance at the annual business meeting of an invitation from a host institution(s) extended to the Executive Director prior to the meeting. Invitations will be subject to acceptance two years prior to the conference date. An annual business meeting will be a scheduled part of the conference program.

V. Fees: Members attending the annual conference shall pay a fee to defray the conference expenses. Home management and family economics graduate students and retired members shall pay a reduced conference fee.

Organization publications shall be made available at a charge equivalent to costs.

VI. Elected Officers: The members attending the annual business meeting shall elect a President, Executive Director, and a Newsletter Editor. The Executive Director shall serve for a period of three years, the Newsletter Editor for two years, and the President for one year: subject to reelection for no more than two additional consecutive terms.

A. President: Duties include
   1. chairing the annual business meeting including preparation of an agenda to be distributed with the conference materials,
   2. planning and chairing the board meetings,
   3. appointing necessary officers and committees,
   4. filing an annual report with the Executive Director.

B. Executive Director: Duties include
   1. handling general operation of the organization during the year,
   2. doing public relations,
   3. orienting new officers,
   4. reporting at the annual business meeting,
   5. soliciting annual conference invitations,
   6. maintaining organization records and files,
   7. acting as association financial and recording secretary.

C. Newsletter Editor(s): Duties include
   1. planning and distributing an organization newsletter to subscribers,
   2. solicitation of subscriptions and content,
   3. recording,
   4. reporting at the annual business meeting,
   5. filing an annual report with the Executive Director,
   6. maintaining and distributing proceedings after initial conference attendance mailing.

VII. Appointed Officers and Committees:

A. Conference Program Officers: These appointed persons shall serve for a period of one year. The appointments are to be made by the President after consultation with and recommendations from the personnel of the following year's host institution(s) and accepted by the membership at the annual meeting.

   1. Conference Chairperson: Duties include
      a) coordinating the annual conference at the host institution(s),
      b) appointing needed chairpersons and

[1] Approved as amended at the 27th Annual Conference, November 7, 1987, Vancouver, British Columbia.

committees to plan and implement the annual conference and its proceedings,
c) evaluating the annual conference,
d) filing reports with the Executive Director and in-coming conference program chairperson.

2. Conference Secretary: Duties include
a) taking minutes at conference planning meetings,
b) assisting the conference chairperson and committees in mailings,
c) filing an annual report with the Executive Director.

3. Conference Treasurer: Duties include
a) assisting the conference chairperson to plan the conference budget,
b) supervising registration,
c) collecting and paying bills of the conference,
d) maintaining financial records and statements of the conference,
e) coordinating financial records and funds with the Executive Director,
f) presenting a report at the annual business meeting,
g) filing an annual report with the Executive Director.

B. Proceedings Editor: For efficiency, this appointment shall be for two years. Duties include
1. preparing and distributing the current conference proceedings,
2. filing an annual report with the Executive Director.

C. Nominating Committee: These one-year appointments are to be made by the President during the year in time to fulfill duties before the conference. The committee will consist of three members. Duties include preparing a slate of officers (President and, if applicable, Executive Director and Newsletter Editor(s)). The slate will be presented at the annual business meeting. It is highly desirable that two candidates for the President and Executive Director positions be presented.

D. Research Award Committee: These appointments, including a chair and at least two others, are to be made by the President and accepted by the membership at the annual meeting. It is highly desirable that one member should be retained from the previous year's committee. Duties include

1. advertising the award and soliciting applications;
2. adjudicating entries according to the guidelines;
3. deciding on a winner willing to present paper;
4. determining whether each nonwinning paper should be accepted as a refereed paper, a reviewed paper, or not accepted.
5. notifying the conference chairperson of these decisions;
6. filing an annual report with the Executive Director.

E. Conference Papers Committee: These appointments are made by the President in consultation with the previous chair of the committee in question. Committees are to consist of a chair and at least two other people with varied areas of specialization. One member of the Reviewed Papers Committee should be from the host conference committee. At least two people should be retained on each committee from the previous year with no member serving no more than three consecutive years on the same committee.

1. Refereed Papers Committee: Duties include
a) coordinating with the Reviewed Papers Committee to call for papers,
b) refereeing submitted papers,
c) reviewing revised submissions when necessary,
d) deciding on final papers to be presented,
e) suggesting respondents for the accepted papers,
f) notifying the conference chair,
g) filing an annual report with the Executive Director.

2. Reviewed Papers Committee: One member should be from the host conference committee to help coordinate last-minute issues related to the program. Duties include
a) coordinating with Refereed Papers Committee to call for papers,
b) reviewing papers submitted,
c) deciding on the papers to be presented,
d) notifying the conference chair,
e) filing an annual report with the Executive Director.

VIII. Executive Board: The board shall consist of the President, Executive Director, conference chairpersons (past year, present year and next year), Newsletter Editor(s) and ad hoc committees on the request of the President. The board shall meet at the direction of the President at the annual conference and on the call of the President to plan, coordinate, and communicate the business of the organization.

IX. Awards: A Research Award will be given each year with the Master's award and Ph.D. award given in alternate years. Eligibility for the Master's award is based on having received a Master's degree from an institution within the Western Region[2]. Ph.D. award submissions will be considered from anywhere in the U.S. and Canada.

X. Amendments: These guidelines may be amended by a two-thirds majority vote of the members present at the annual business meeting. Amendments must be submitted to the membership in writing prior to the business meeting.

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[2] The Western Region includes the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Western Canada includes Alberta, British Columbia, Manitoba, and Saskatchewan. Region definition is based on USDA regions.

PROGRAM

WESTERN REGIONAL HOME MANAGEMENT
FAMILY ECONOMICS EDUCATORS CONFERENCE

Pan Pacific Hotel
Vancouver, British Columbia

November 4-6, 1987

Wednesday, November 4, 1987

6:00-8:00 p.m. **Registration**

7:00-9:00 p.m. **Reception/Buffet**

Thursday, November 5, 1987

8:00 a.m. **Registration**

8:50-10:40 a.m. **Opening General Session**

Welcome:
Ruth Berry, University of Manitoba
Phyllis Johnson, University of British Columbia

Presider:
Shirley Myers, Head, Home Economics Branch, Alberta Agriculture

9:00 a.m. **"The Low Cost of Universal Access"**

Keynoter:
Morris Barer, Dept. of Health Care & Epidemiology; Associate Director, Division of Health Services Research & Development, University of British Columbia

9:45 a.m. **"Issues and Concerns of Health Care Provision"**

Panel:
John O'Brien-Bell, President-Elect, Canadian Medical Association; Past-President, BC Medical Association

Paul Pallan, Executive Director, Division of Policy, Planning, and Legislation, Ministry of Health

Ada Brown, National Board Member, Consumers Association of Canada (CAC); Past-President, BC Branch of CAC

10:40-11:00 a.m. **Break**

11:00-12:30 p.m. **Refereed Paper Session**

Presider:
Donna Selnick, California State University, Sacramento

11:00 a.m. **"The Personal Financial Effects of Serious Work Injury"**

Authors:
Sally Horton and Margaret Ray, Washington State University

Discussants:
Robin Douthitt, University of Wisconsin-Madison
Jean Lown, Utah State University

11:45 a.m. **"Western Regional Proceedings: Contents in the 1980s and References to the Papers"**

Authors:
Carole J. Makela and Suzanne M. Tucker, Colorado State University

Discussants:
Georgianne Baker, Arizona State University
Doris Beard, California State University, Sacramento

12:30-2:15 p.m. **Luncheon**

Presider:
Alice Mills Morrow, Oregon State University

Doctoral Student Research Award Presentation:
"Divorce: The Economic Consequences after Ten or More Years of Marriage"
Recipient:
Barbara Rowe, Utah State University

2:30-5:00 p.m. **Refereed Paper Session**

Presider:
Diane Masuo, University of Hawaii at Manoa

2:30 p.m. **"Relationship Between Household Task Allocation and Perceived Stress in Nonmetropolitan Families"**

Authors:
Rebecca Ward, Oregon Extension Service
Judith Zimmerman, University of Nevada-Reno

Discussants:
Nancy Kingsbury, University of Manitoba
Geraldine Olson, Oregon State University

3:15 p.m. **"Mobile Families' Satisfaction with Economic and Personal Factors and Its Relation to Stress"**

Author:
Peggy S. Berger, Colorado State University

Discussants:
Joan Ash, Yakima, Washington
Carol H. Harvey, University of Manitoba

4:00 p.m. **"The Conservation Process: A Model and a Preliminary Test"**

Authors:
Molly Longstreth and Michael Topliff, University of Arizona

Discussants:
Janice Hogan, University of Minnesota
Virginia Haldeman, University of Nevada-Reno

4:40 p.m. **Refereed Paper Session Closes**

5:30 p.m. **Optional Special Event**

Bus transportation to the University of British Columbia

Northwest Coast Indian Night

Friday, November 6, 1987

9:00-10:00 a.m. **General Session**

Presider:
Jean Wilson, Family Resource Management, Home Economics Branch, Alberta Agriculture

"Comparative Approaches to Family Welfare"

Keynoter:
Doris Badir, President's Advisor on Pay Equity, University of Alberta; President-Elect of the International Federation for Home Economics

10:00-10:20 a.m. **Break**

10:20-12:40 p.m. **Concurrent Reviewed Paper Sessions**
(Please feel free to move between sessions at the end of a presentation.)

Reviewed Paper Session A

Presider:
Margaret Crowle, University of Saskatchewan

10:20 a.m. **"Development and Application of an Underemployment Classification System for Women in Two-Parent, Two-Child Families"**
Author:
Diane Masuo, University of Hawaii at Manoa

10:40 a.m. **"Financial Management Practices Influencing Perceived Adequacy of Consumption Level Among Married Student Wives"**
Author:
Naheel Jeries, Iowa State University

11:00 a.m. **"Analysis of the Effects of Children on the Trade-Off Between Parental Time and Market Purchased Goods and Services Over the Life Cycle"**
Authors:
Robin A. Douthitt, University of Wisconsin
Joanne P. Fedyk, University of Saskatchewan

11:20 a.m. **"Future of Retirement: The Baby Boom Generation"**
Author:
Colleen K. Mileham, Oregon State University

11:40 a.m. **"Factors Related to Receiving Informal Grants"**
Authors:
Virginia Haldeman, Ann Tomcala, Helen C. Hall, University of Nevada-Reno

12:00 p.m. **"Playing the Numbers Game"**
Author:
Audrey Peterson, University of Montana

Reviewed Paper Session B
Presider:
Glenda Everett, Lethbridge Community College

10:20 a.m. **"Teaching Writing Through Management Theory"**
Author:
Audrey Peterson, University of Montana

10:40 a.m. **"Health, Self-Esteem, and Youth Employment"**
Authors:
Arlene Holyoak and Jerri Wolfe, Oregon State University

11:00 a.m. **"Predictors of Search Time for the Purchase of a Home Furnishings Durable Good"**
Authors:
Norleen Ackerman and Leona Windley, Utah State University

11:20 a.m. **"Family Debt Management in Bankruptcy"**
Authors:
Barbara Bartelme, Phoenix Community College
Georgianne Baker, Arizona State University

11:40 a.m. **"Towards a Conceptual Understanding of Financial Problems: Building on Hughes' Model of the Family in Financial Crisis"**
Authors:
Jean M. Lown and Janeen Cook, Utah State University

12:00 p.m. **"Patterns of Family Financial Management"**
Author:
Elizabeth Davis, University of Nebraska

12:30-2:20 p.m. **Luncheon, WRHMFEE Business Meeting**
Presider:
Sally Horton, President WRHMFEE, Washington State University

2:30-5:00 p.m. **Workshop**

Presider:
Joanne Fedyk, University of Saskatchewan

"Using Family Economics Data for the Welfare of Families--Application in the Courtroom and the Classroom"

Presenters:
Jeanne Wielage Smith, Univ. of California, Davis
Ruth Berry, University of Manitoba
Alice Mills Morrow, Oregon State University
Jeanne M. Peters, University of Nevada-Reno
Anita Barsness Metzen, University of Missouri

5:00 p.m. **Conference Closes**

Saturday, November 7, 1987

Optional Special Event -- The Victorian Experience

LIST OF REGISTRANTS

Norleen Ackerman
College of Family Life
Utah State University
Logan, UT 84322-2949

Joan Ash
2705 W. Loncoln #201
Yakima, WA 98902

Marlene Atleo
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Doris R. Badir
11418 75th Avenue
Edmonton, Alberta T6G 0H7

Georgianne Baker
10285 E. Bella Vista
Scottsdale, AZ 85258

Doris M. Beard
1106 Vanderbilt Way
Sacramento, CA 95825

Peggy S. Berger
Consumer Sciences & Housing
Colorado State University
Fort Collins, CO 80523

Ruth Berry
Faculty of Human Ecology
University of Manitoba
Winnipeg, Manitoba R3T 2N2

Carol L. Bezold
P.O. Box 32
Colville, WA 99114

Karen Campbell
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Janeen Cook
379 E. 200 North #1
Logan, UT 84321

Margaret Crowle
College of Home Economics
University of Saskatchewan
Saskatoon, Saskatchewan S7N 0W0

Beth Davis
Consumer Science & Education
123 Home Economics
University of Nebraska
Lincoln, NE 68583-0801

Christian Doering
2305 NW Jackson
Corvallis, OR 97330

Robin A. Douthitt
Room 370B-Home Economics
1300 Linden Drive
University of Wisconsin
Madison, WI 53706

Emilie Duggan
5364 Wellesley Street
La Mesa, CA 92042

Glenda Everett
3000 College Drive South
Lethbridge Community College
Lethbridge, Alberta T1K 1L6

Rosanne Farnden
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Eda Favaro
Vancouver School Board
1595 W. 10th
Vancouver, B.C. V6J 1Z8

Joanne Fedyk
College of Home Economics
University of Saskatchewan
Saskatoon, Saskatchewan S7N 0W0

Diana Gill
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Karen P. Goebel
Family & Consumer Economics
1300 Linden Drive #235
Madison, WI 53706

Virginia Haldeman
School of Home Economics
University of Neada-Reno
Reno, NV 89557

Carol Harvey
Faculty of Human Ecology
University of Manitoba
Winnipeg, Manitoba R3T 2N2

Deborah Haynes
Dept. of Health & HUDEV
College of Ed, Health & HUDEV
Montana State University
Bozeman, MT 59717

Maria Hein
Home Economics Department
Portland Community College
Portland, OR 97219

Kay Henderson
P.O. Box 14955
Spokane, WA 99214

Janice Hogan
Family Social Science
University of Minnesota
St. Paul, MN 55108

Arlene Holyoak
Family Resource Management Dept
College of Home Economics
Oregon State University
Corvallis, OR 97331

Sally Horton
Extension Family Economics Specialist
Cooperative Extension
Room 301-E, Hulbert Hall
Washington State University
Pullman, WA 99164-6230

Naheel Jeries
College of Home Economics
Department of Family Environment
LeBaron Hall
Iowa State University
Ames, IA 50011

Phyllis J. Johnson
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Nancy Kingsbury
Department of Family Studies
Faculty of Human Ecology
University of Manitoba
Winnipeg, Manitoba R3T 2N2

Paula D. Leichty
Extension Office
3040 Courthouse Building 3
2000 Lakeridge Drive
Olympia, WA 98502

Molly Longstreth
Family & Consumer Resources
University of Arizona
Tucson, AZ 85721

Laura Lowden
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Jean M. Lown
Home Ec & Consumer Education
College of Family Life
Utah State University
Logan, UT 84322-2910

Carole J. Makela
Consumer Sciences and Housing
Colorado State University
Fort Collins, CO 80523

Diane Masuo
Department of Human Resources
College of Tropical Agriculture
& Human Resources
University of Hawaii at Manoa
2515 Campus Road
Honolulu, HI 96822

Helen Mau
332 Cresta Vista Drive
San Francisco, CA 94127

Jane Meiners
Family Resource Management
Oregon State University
Corvallis, OR 97331

Cynthia Mepham
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.C. V6T 1W5

Colleen Mileham
2460 NW Rolling Green #20
Corvallis, OR 97330

Joyce A. Moore
449 D Street SW
Ephrata, WA 98823

Alice Mills Morrow
141 Milam
College of Home Economics
Oregon State University
Corvallis, OR 97331

Shirley Myers
#1003, 9808-103 Street
Edmonton, Alberta T5K 2G4

Debra L. Nelson
P.O. Box 2952
Pullman, WA 99165

Gerry Olson
3477 NW Walnut Blvd.
Corvallis, OR 97330

Louise Parker
5316 2nd Avenue NW
Seattle, WA 98107

Jeanne M. Peters
6555 Pluman #183
Reno, NV 89509

Audrey Peterson
School of Education
University of Montana
Missoula, MT 59812

Monica Pley
Family & Nutritional Sciences
University of British Columbia
Vancouver, B.X. V6T 1W5

Norma Redeker
Family and Consumer Resources
University of Arizona
Tucson, AZ 85721

Barbara Rowe
Extension Specialist
Family Resource Management
Utah State University
Logan, UT 84322-2949

Carolyn Rude
Cooperative Extension
1000 N. Forest
Bellingham, WA 98225

Birgit Schwarzmeier
318 SW 7th Avenue
Corvallis, OR 97330

Donna Selnick
2154 University Park Drive
Sacramento, CA 95825

Jeanne Wielage Smith
Applied Behavioral Science Dept
University of California
Davis, CA 95616

Betty Turner
Family Economics Specialist
103 Home Economics Building
University of Idaho
Moscow, ID 83843

Karen Varcoe
Cooperative Extension Annex
University of California
Riverside, CA 92521-0316

Dee Anne Vonde
140 Lake Tahoe Place SE
Calgary, Alberta T2J 4B7

Cora G. Vowell
233 Courthouse
Yakima, WA 98901

Jutta Waldeck
2305 NW Jackson
Corvallis, OR 97330

Rebecca J. Ward
Crook County Extension Service
Courthouse, Room 20
Prineville, OR 97754

Louise Wesswick
2200 Garfield Avenue
Laramie, WY 82070

Jean Wilson
Home Economics Branch
7000-113 Street
J.G. O'Donoghue Building
Edmonton, Alberta T6H 5T6